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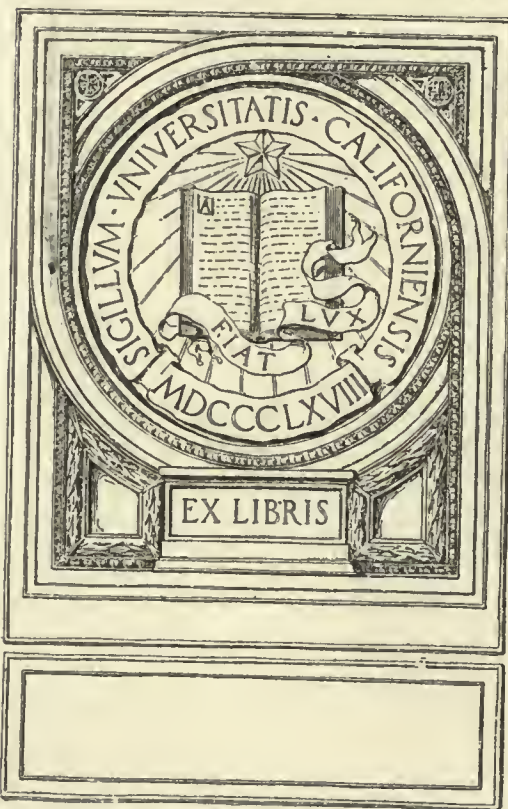
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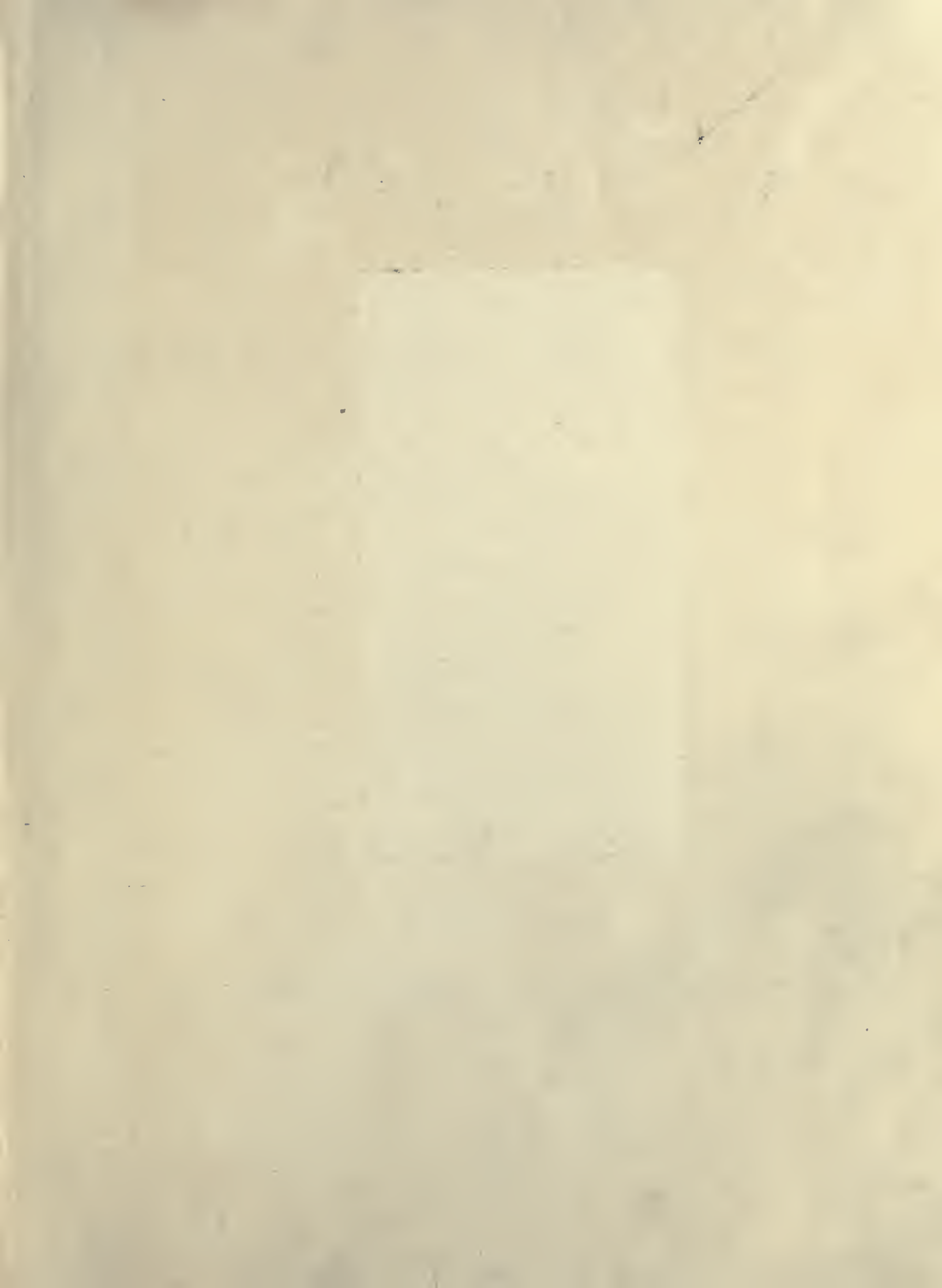
GYMNASTICS APPARATUS



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GYMNASTIC APPARATUS



MADE BY THE

NARRAGANSETT MACHINE CO.

PROVIDENCE, R. I., U. S. A.



TO VIEW
AMERICAN



FACTORY OF THE NARRAGANSETT MACHINE CO.
PAWTUCKET, R. I.

FLOOR AREA 100,000 FEET

SHED AREA 30,000 FEET

A FOREWORD



EARLY twenty-five years ago we issued the first catalogue devoted to Gymnastic Apparatus—a modest pamphlet of forty pages. It is with pleasure we consign this, the seventh edition, to the gymnastic profession; and ask for it the same kindly and appreciative reception given to previous issues.

In the following pages will be found the old and tried forms of apparatus that have stood the test of use; developed and refined to meet the requirements of modern practice, and embody the advantages of modern methods of manufacture and materials.

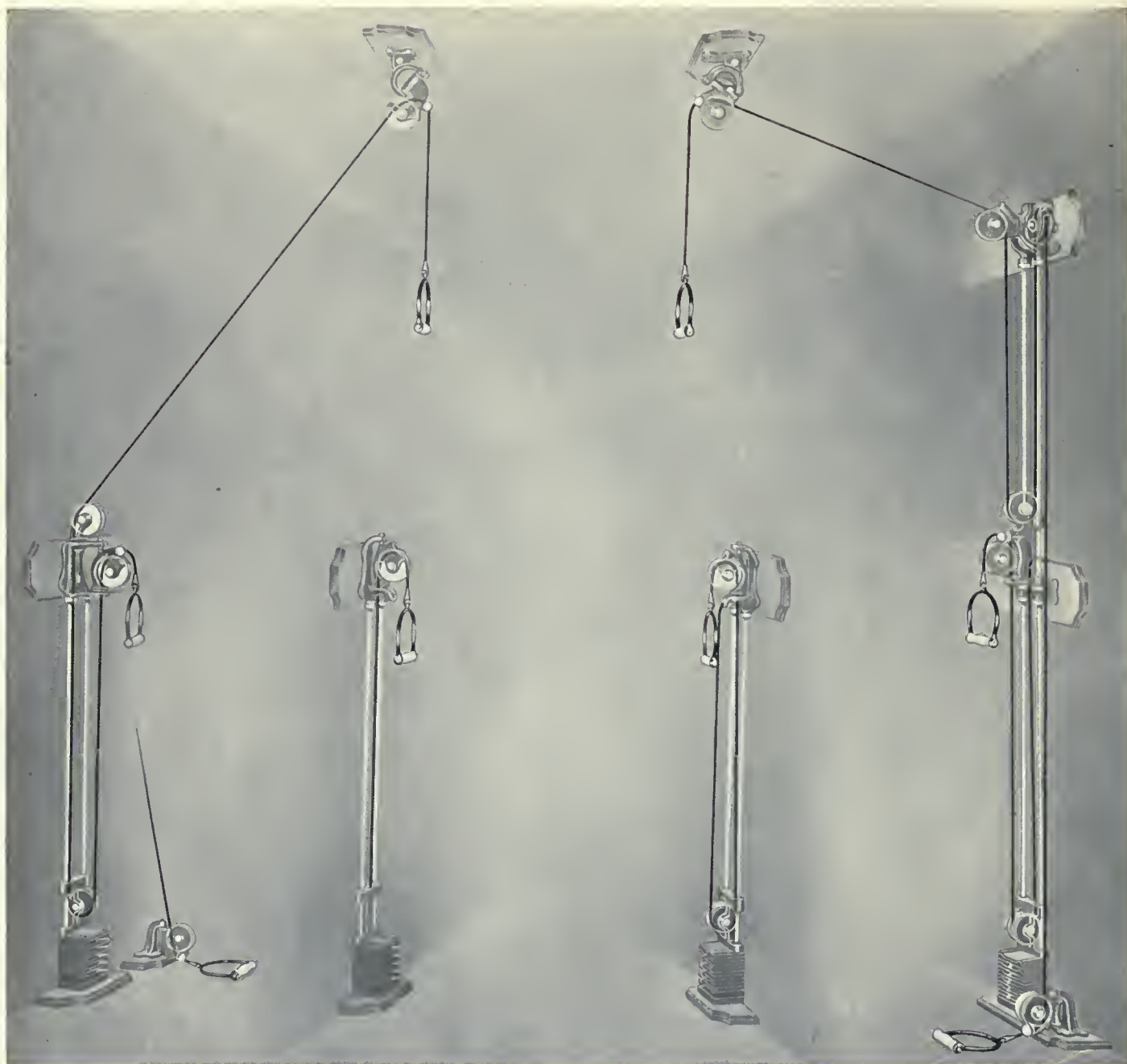
The constant growth of our business and the continued patronage of leading institutions are the best evidences we can offer of the appreciation of our efforts to make gymnastic apparatus all that it should be. These pages show in detail the results of such effort.

We desire here to thank all who, by advice, suggestions, or kindly commendation, have aided us in making better apparatus, and to ask a continuance of these favors, assuring all that we spare no effort to merit this confidence and to satisfy the most exacting purchaser.

Yours respectfully,

NARRAGANSETT MACHINE CO.,

PROVIDENCE, R. I.



3-DUPLEX

1-SINGLE

2-COMPOUND

4-TRIPLEX

PULLEY WEIGHTS

The importance of Pulley Weights in gymnasium equipment leads us to fully describe and illustrate the advantages of the details of construction of our machines; which we do, in the three following pages, followed by illustrations and descriptions of the different forms of pulley weights.

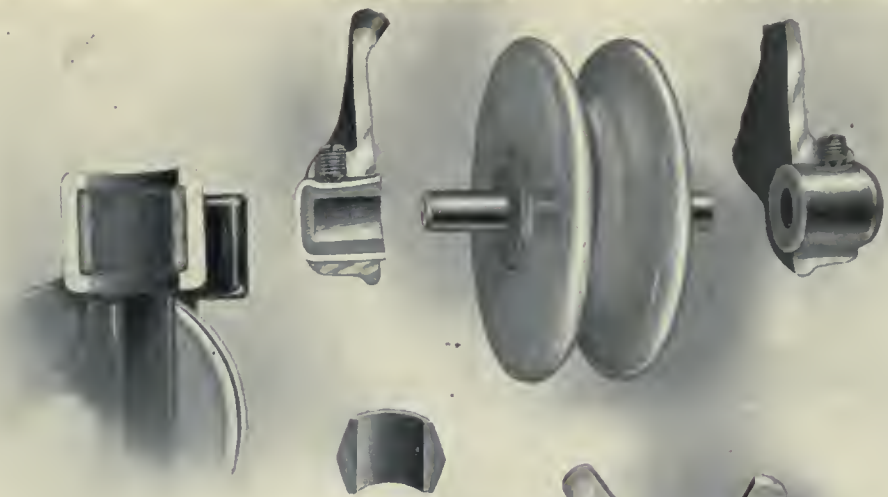
The above illustration shows the arrangements of pulleys and ropes generally used.

1—SINGLE. The earliest form. The weight being lifted direct, moves as fast as the handle. This form is still used for rowing weights.

2—COMPOUND. The rope passes under the pulley on the weight holder; the effective weight is one-half the actual weight, the handle movement being twice the weight movement. This is the form generally used on pulley weights.

3—DUPLEX. Compound, using both ends of the rope. The most satisfactory combination of two machines. The back rope may be run either up over the ceiling pulley, or down under the floor pulley.

4—TRIPLEX. The addition of a third handle to the duplex. The chest pulley acts as a compound rope machine. The floor and ceiling pulley act like a duplex pulley using the chest pulley block, etc., as a weight. See description in later pages.



STANDARD DETAILS

PULLEY BEARINGS

The durability and smooth running of a pulley weight depends on its bearings. The Standard Bearing consists of a wooden collet, saturated with oil and forced into a brass cup. This cup is adjusted and held by a conical pointed set screw pressing in an inclined groove. The shafts are polished steel, smooth and noiseless in action. The wheels are wood in the Standard, and nicked iron in the Standard Special Pulleys. This bearing is practically self-lubricating.



FELT BEARINGS

Our Felt Bearings guide the weight holder smoothly and noiselessly on the rods. They are essential to the quiet running of pulley weights.

UNDER-LIFT WEIGHTS

The Under-Lift Weight was first adapted to the chest weight by us, and its superiority has forced others to use it. The Standard Under-Lift Weight as made by us is still the most practical form. The illustrations show a separated weight, the upper half attached to the weight above it by the lever. The wooden bushings, one of which is shown in section above, prevents metallic contact of the weight with the rods. The two halves of the weight when riveted together hold the bushings and the locking lever in place. This form of weight cannot stray from the machine, and is attached or detached by a touch of the toe. A spring prevents accidental detaching.

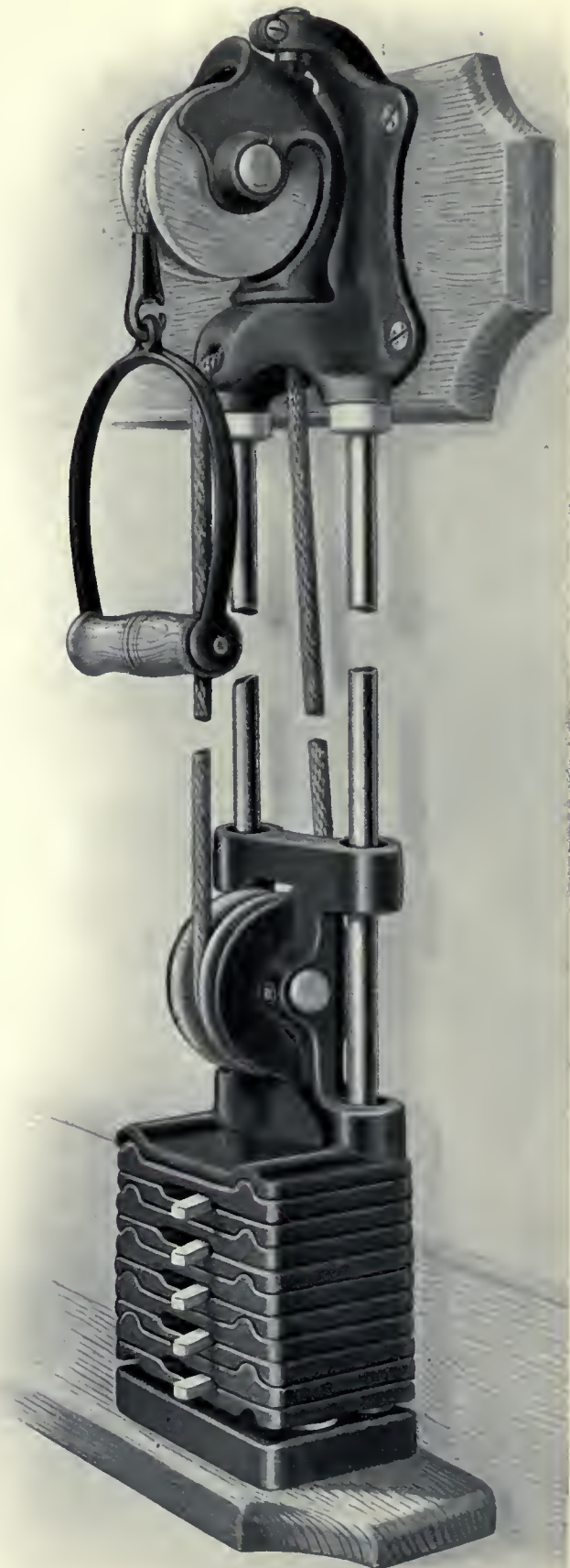
THE STANDARD PULLEY WEIGHT

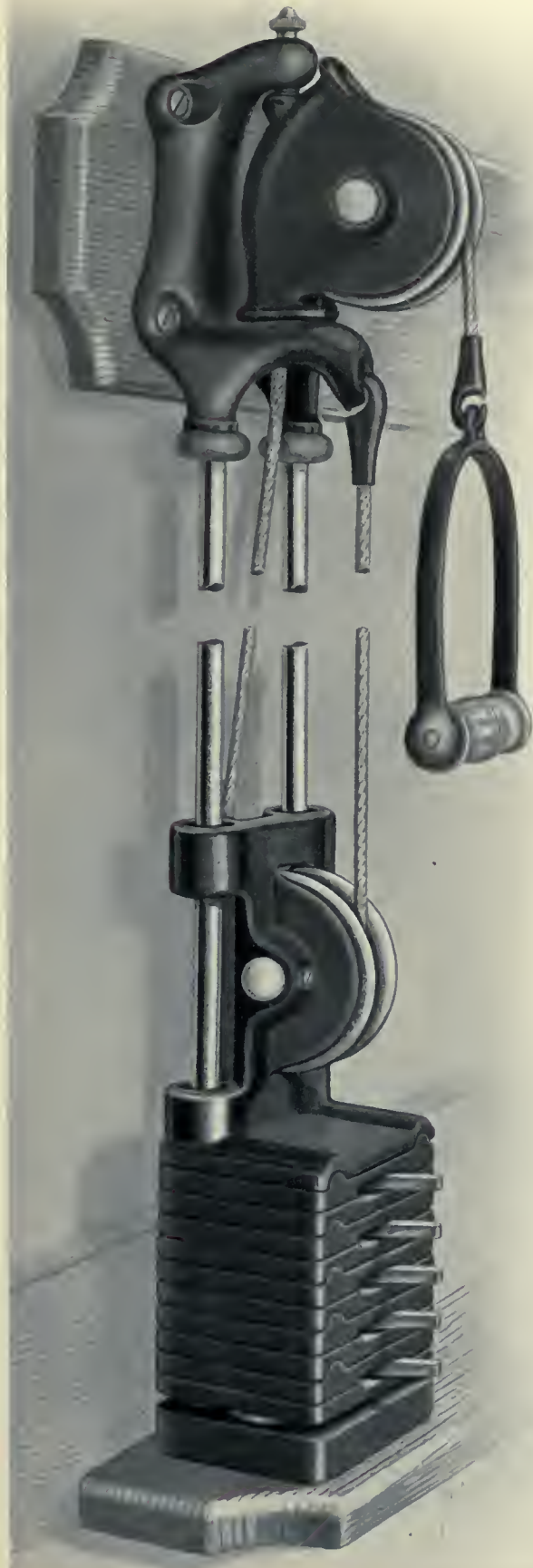
SPECIFICATION

Hard Wood Wheels with Steel Shaft.
Self-Lubricating Noiseless and Inter-
changeable Bearings.
Rods Screwed in Brackets.
Baked Japan Finish.
Buffers at top of Rods.
Hollow Swivel Blocks.
Handles with Swivel Joints.
Felted Weight Holders.
Under-lift Weights.
Grey Braided Cord.
Selected Oak Woodwork, Natural Finish.

The principle adopted in these Pulley Weights enables us to furnish substantial and durable machines at a moderate cost. There are more gymnasiums fitted with this grade than any other.

The illustration, which is made directly from a photograph, shows the artistic design of this line of Pulley Weights. The well rounded corners and smooth outlines emphasize the fine black finish and contrast favorably with the neatly moulded oak mountings.





THE STANDARD SPECIAL PULLEY WEIGHT

SPECIFICATION

Nickel Plated Wheels with Steel Shaft.
 Self-Lubricating, Noiseless and Inter-
 changeable Bearings.
 Heavy Nickel Plated Rods screwed in
 Brackets.
 Special Heavy Baked Japan Finish.
 Moulded Buffers at tops of Rods.
 Hollow Swivel Blocks.
 Heavy Handles with Swivel Joints.
 Felted Weight Holders.
 Under-lift Weights.
 Special Braided Rope.
 Selected Oak Woodwork, Natural Finish.

This grade of Pulley Weights was specially designed for institutions that want the best obtainable apparatus. No expense has been spared to perfect every detail and make the machines so they will stand the most severe use with the least care.

The substantial and elegant appearance of these machines compares favorably with the architectural details of finely designed buildings. The rich black japan finish is relieved by the nickeled parts and set off by being mounted on selected oak boards of neat design.

PULLEY WEIGHTS

IN the preceding pages the details of our "Standard" and "Standard Special" pulley weights have been described and specified. In the following pages, the various machines using these details, that have proven by use to be the most practical, are illustrated, described and priced.

Other special Pulley Weights may be made from these and other detail parts that we have. We shall be pleased to send photographs or sketches of special Pulley Weights not listed.

Each Pulley Weight (with few exceptions) is listed in the two grades, Standard and Standard Special, previously specified on pages six and seven.

All Pulley Weights are mounted on finely finished oak boards with rounded corners and provided with all the necessary screws for erection.

No. 10 CHEST WEIGHT



The most popular machine. Thousands are in use in gymnasiums, and many in homes. It has the compound rope, which allows twice the usual length of movement, and swivel blocks that permit movements in every direction. It is noiseless and self-lubricating.

This machine has the under-lift weights. On these the weight can be changed by a touch of the toe, and cannot be taken from the machine or get lost.

No. 10 CHEST WEIGHT, Standard. Double set
of pulleys, rods, weights, etc., as specified
on page 6, **\$16.00**

No. 10 CHEST WEIGHT, Standard Special.
Double set of pulleys, rods, weights, etc.,
as specified on page 7, **30.00**

The boards on which the machine is mounted are twenty-six inches long, the wall board is six inches wide, and its centre is five feet from the floor.

ROWING PULLEY WEIGHT

For class work in gymnasiums and for home use, a machine that will give a wide range of exercise is needed. We have designed the No. 60 Pulley Weight for these purposes. It is a strong, durable machine, built for gymnasium practice, but equally well adapted for home use.

The seat, although desirable, is not a necessity, and the back-board will be provided without it if desired. The seat is shown, dropped in the right hand illustration and raised in the central figure. It is dropped by pressing a lever back of the board, and latches automatically on being raised.

On this machine no adjustment of pulleys or ropes is necessary in order to change from the upper to the lower pulleys. The lower wall pulleys carry the ropes over the foot board of the row-slide at the proper height for rowing.

No. 60 PULLEY WEIGHT, Standard, with chest, back and loin and rowing pulleys, back-board, row-slide and seat. Double set rods, weights, etc., as specified on page 6,

\$45.00

No. 60 PULLEY WEIGHT, Standard Special, with chest, back and loin and rowing pulleys, and back-board, row-slide and seat. Double set rods, Weights, etc., as specified on page 7,

65.00

No. 61 PULLEY WEIGHT, Standard, with back-board and row-slide and no seat,

\$40.00

No. 61 PULLEY WEIGHT, Standard Special, with back-board and row-slide and no seat,

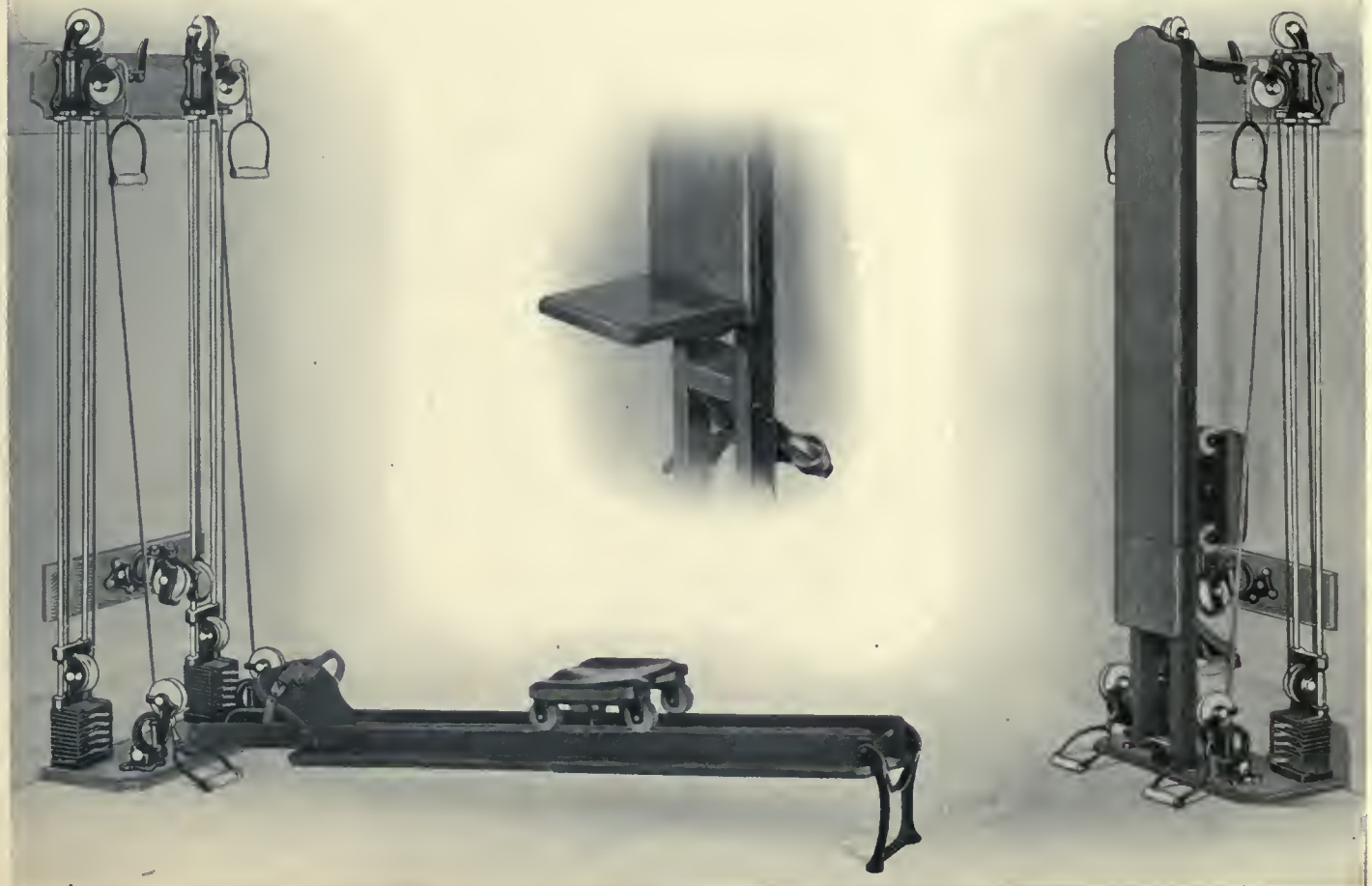
60.00

No. 60-1 ROW-SLIDE only, with seat,

24.00

No. 61-2 ROW-SLIDE only, no seat,

20.00



SARGENT COMBINATION

PULLEY WEIGHT

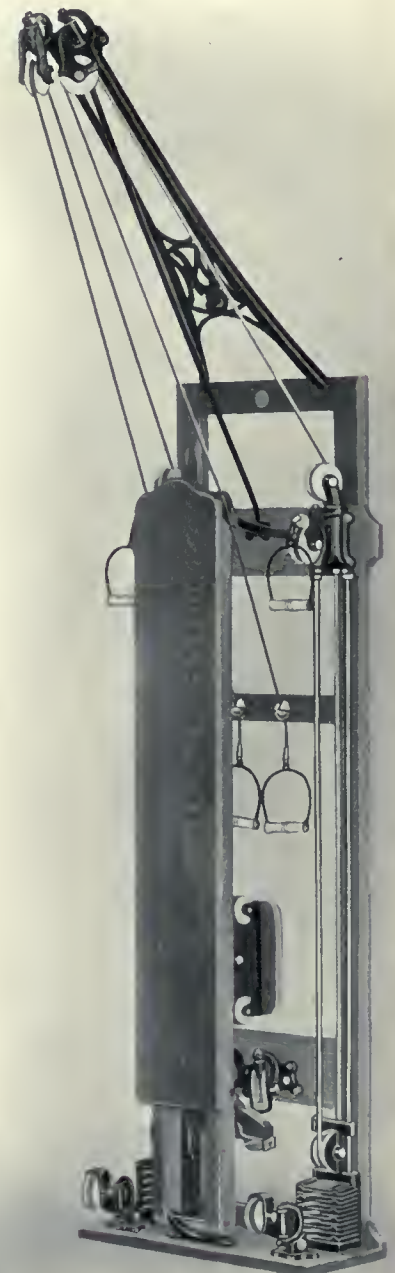
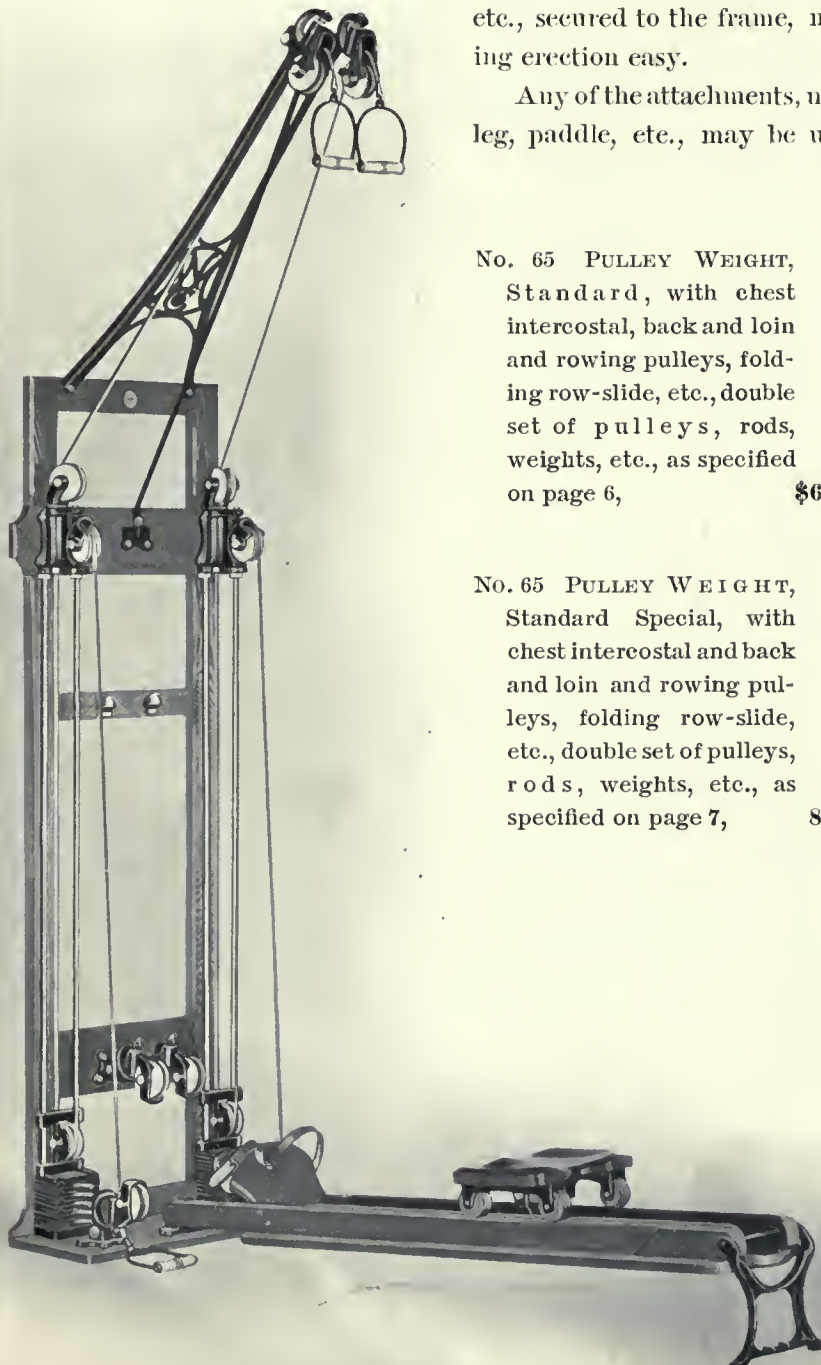
This Pulley Weight was designed by Dr. D. A. Sargent, to provide the desirable features of the gymnasium machines, in compact form, for home use. It comprises a chest weight with back board, intercostal or chest expander and developer pulleys, and a rowing weight with sliding seat. The rowing pulleys are raised to bring the resistance up to about where it is in rowing. One illustration shows the machine arranged as a rowing machine; the other as a chest weight. To form the intercostal and back and loin weights, the chest weight handles are drawn down to the floor and the ropes passed under the floor pulleys. This action pulls the other pair of handles up to the high pulleys.

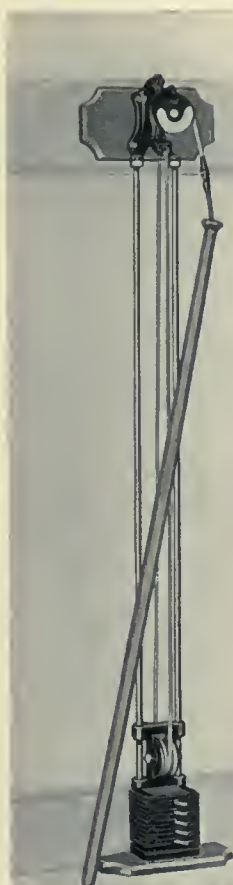
This machine is boxed for shipment with all the pulleys, etc., secured to the frame, making erection easy.

Any of the attachments, neck, leg, paddle, etc., may be used.

No. 65 PULLEY WEIGHT,
Standard, with chest
intercostal, back and loin
and rowing pulleys, fold-
ing row-slide, etc., double
set of pulleys, rods,
weights, etc., as specified
on page 6, **\$60.00**

No. 65 PULLEY WEIGHT,
Standard Special, with
chest intercostal and back
and loin and rowing pul-
leys, folding row-slide,
etc., double set of pulleys,
rods, weights, etc., as
specified on page 7, **\$80.00**





No. 132 PADDLE MACHINE

This and several following machines are formed by attaching various devices to pulley weights. The ones we list are the most commonly used types, but others may easily be made.

No. 132 PADDLE MACHINE, Standard. Single set of rods, weights, etc., as specified on page 6, with paddle, **\$12.00**

No. 132 PADDLE MACHINE, Standard Special. Single set of rods, weights, etc., as specified on page 7, with paddle, **20.00**

No. 130-2 PADDLE. May be attached to any chest weight, **2.00**

SCULLING MACHINE

An attractive and desirable special machine for developing the side, leg and arm muscles which are used in wrestling or sculling a boat over the stern.

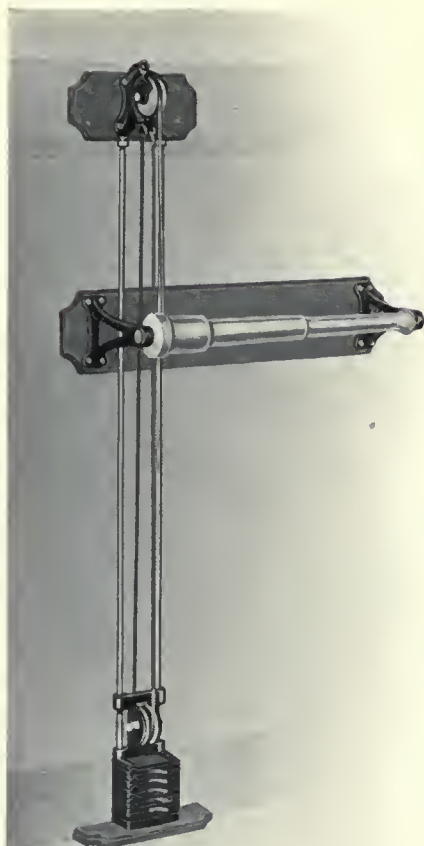
Special machines of this class form an agreeable variety in large outfits, and are often used simply because they are there. On most of them the machine suggests the form of exercise, but directors often find them useful in prescribing special exercises.

No. 135 SCULLING MACHINE, Standard. Single set pulleys, rods, weights, etc., as specified on page 6, with sculling oar, **\$18.00**

No. 135 SCULLING MACHINE, Standard Special. Single set pulleys, rods, weights, etc., as specified on page 7, with sculling oar, **28.00**

No. 135-1 SCULLING OAR. May be attached to any chest weight, **10.00**





WRIST ROLL

These machines are made with polished maple rolls and long brackets to allow wrist movement back of the roll. The roll may be set either in a horizontal or vertical position.

No. 143 WRIST ROLL, Standard. Single set of rods, weights, etc., as specified on page 6, with wrist roll,	\$16.00
No. 143 WRIST ROLL, Standard Special. Single set of rods, pulleys, weights, etc., as specified on page 7, with wrist roll,	24.00
No. 143-1 WRIST ROLL, may be attached to any chest weight,	6.00

ATTACHMENTS

Many of the means of operating pulley weights, such as wrist rolls, head gears, paddles, etc., can easily be attached in place of the commonly used chest weight handle, thus forming special machines from the regular chest weights.

The attachments, when detached, do not in any way interfere with the use of the pulleys for class work, the changes being quickly made.

Attachments will be found listed on the pages with, and following, the machines, as in case of wrist roll above.



FINGER MACHINE

The carriage of this machine runs on steel rods, thus producing a smooth action. To set up, secure the board to the wall with the finger bar forty-two inches high.

No. 180 FINGER MACHINE, "Standard." Single set rods, pulleys, weights, etc., as specified on page 6, **\$20.00**

No. 180 FINGER MACHINE, "Standard" Special. Single set rods, pulleys, weights, etc., as specified on page 7, **25.00**

SINGLE NECK MACHINE

Having one point of attachment for head gear, as shown in illustration below.

No. 150 NECK MACHINE, "Standard." Single set rods, pulleys, weights, etc., as specified on page 6, with head gear, No. 150-4, **\$12.00**

No. 150 NECK MACHINE, "Standard" Special. Single set rods, pulleys, weights, etc., as specified on page 7, with head gear, No. 150-4, **20.00**



DUPLEX NECK MACHINE

With pulleys and hooks for attaching head gear at chest height or floor. See neck machine in illustration of pipe stalls.

No. 152 DUPLEX NECK MACHINE, "Standard." Single set rods, pulleys, weights, etc., as specified on page 6, with head gear, No. 150-4, **\$18.00**

No. 152 DUPLEX NECK MACHINE, "Standard" Special. Single set rods, pulleys, weights, etc., as specified on page 7. With head gear, No. 150-4, **28.00**



No. 150-3.

No. 150-2.

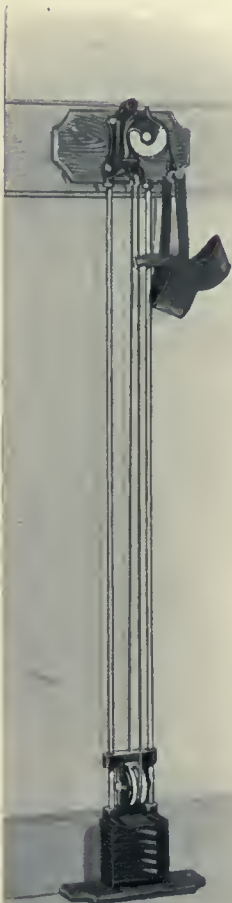
HEAD GEARS

These head gears can be attached to any chest weight.

No. 150-4 HEAD GEAR. Strongly made of leather, as shown in illustration of Neck Machine, **\$4.00**

No. 150-2 HEAD GEAR. Two white webbing head straps and a cross bar. The straps are washable, **1.50**

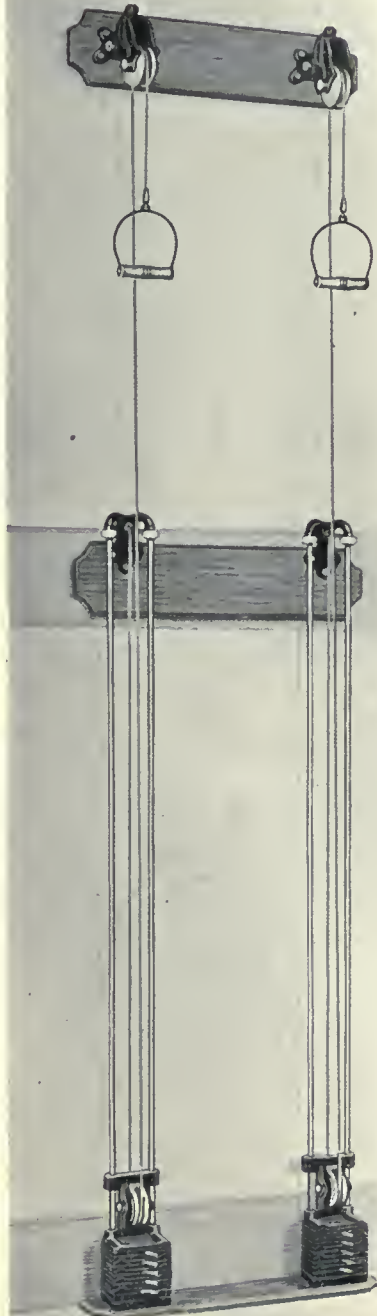
No. 150-3 HEAD GEAR. A webbing head strap, attaches to the handle of a chest weight, **.50**



GIANT PULLEY

The Giant Pulley is simply a high chest weight; the swivel blocks being eight and one-half feet from the floor. The double machines require a width of twenty-six inches and a height of nine feet.

The Single Rope Giant Pulley, with split handle, is used in connection with chest bars (see cut of chest bar), or it may have a cross bar handle and a back-board similar to those used on leg pulleys. It requires a height of nine feet for a cross bar handle and twelve for the split handle.



DOUBLE GIANT PULLEY

No. 200 GIANT PULLEY, Standard.
Double set of pulleys, rods,
weights, etc., as specified on
page 6, **\$20.00**

No. 200 GIANT PULLEY, Standard
Special. Double set of pulleys,
rods, weights, etc., as specified
on page 7, **36.00**

SINGLE GIANT PULLEY

No. 208 GIANT PULLEY, Standard.
Single set of pulleys, rods,
weights, etc., as specified on
page 6, with split handle. **\$12.00**

No. 208 GIANT PULLEY, Standard
Special. Single set of pulleys,
rods, weights, as specified on
page 7, with split handle. **24.00**

BACK BOARD.

For Leg Pulley or Giant Pulleys, see
cut on opposite page.

No. 230-1 BACK BOARD, **\$4.00**



LEG PULLEY

Leg Pulleys should be placed back of breast bars, or inside of pipe stalls, to give support to the one using the machine and to confine the action to the leg muscles.

The High and Low Leg Pulley is made on the duplex principle, using both ends of the ropes, thus making a perfect combination machine.

No. 232 HIGH AND LOW LEG PULLEY, "Standard." Single set of pulleys, rods, weights, etc., as specified on page 6, with back board and shoes, **\$26.00**

No. 232 HIGH AND LOW LEG PULLEY, "Standard" Special. Single set of pulleys, rods, weights, etc., as specified on page 7, with back board and shoes, **\$40.00**

ABDOMINAL MAT

This machine consists of a single back and loin pulley, with a mat having a sliding foot rest attached. The mat is not secured to the floor and may be easily removed. It may be purchased separately and used as an attachment to any floor pulley machine.

No. 207 ABDOMINAL MAT, "Standard." Single set of pulleys, rods, weights, etc., as specified on page 6, with mat, **\$24.00**

No. 207 ABDOMINAL MAT, "Standard" Special. Single set of pulleys, rods, weights, etc., as specified on page 7, with mat, **\$35.00**

No. 207-1 ABDOMINAL MAT ATTACHMENT, **12.00**

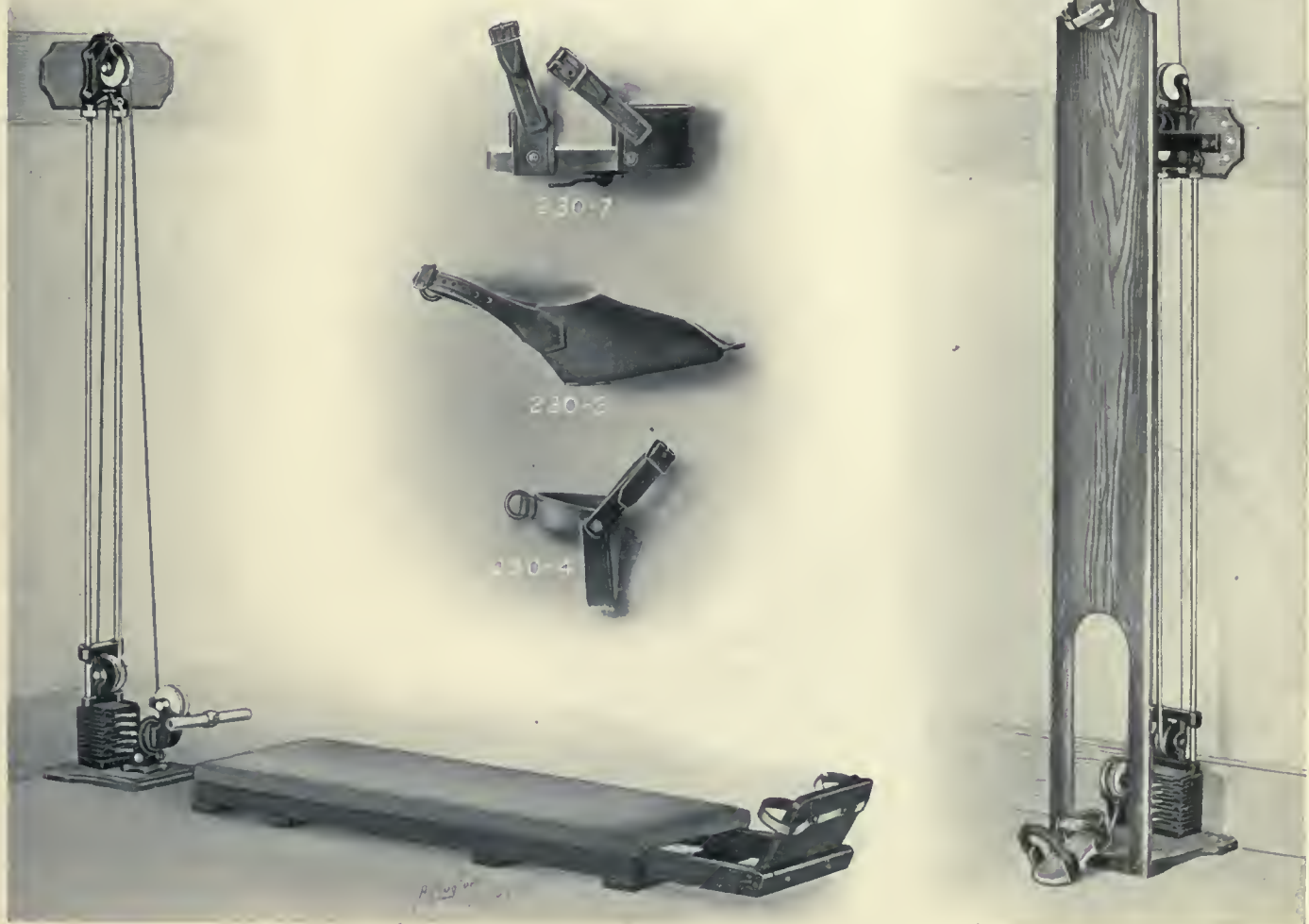
SHOES

FOR LEG PULLEYS OR ATTACHMENTS.

No. 230-7 SHOE. Central attachment, **\$2.50**

No. 230-3 SHOE. Toe and heel attached, **2.50**

No. 230-4 FOOT STRAP, **.80**



ROWING WEIGHT

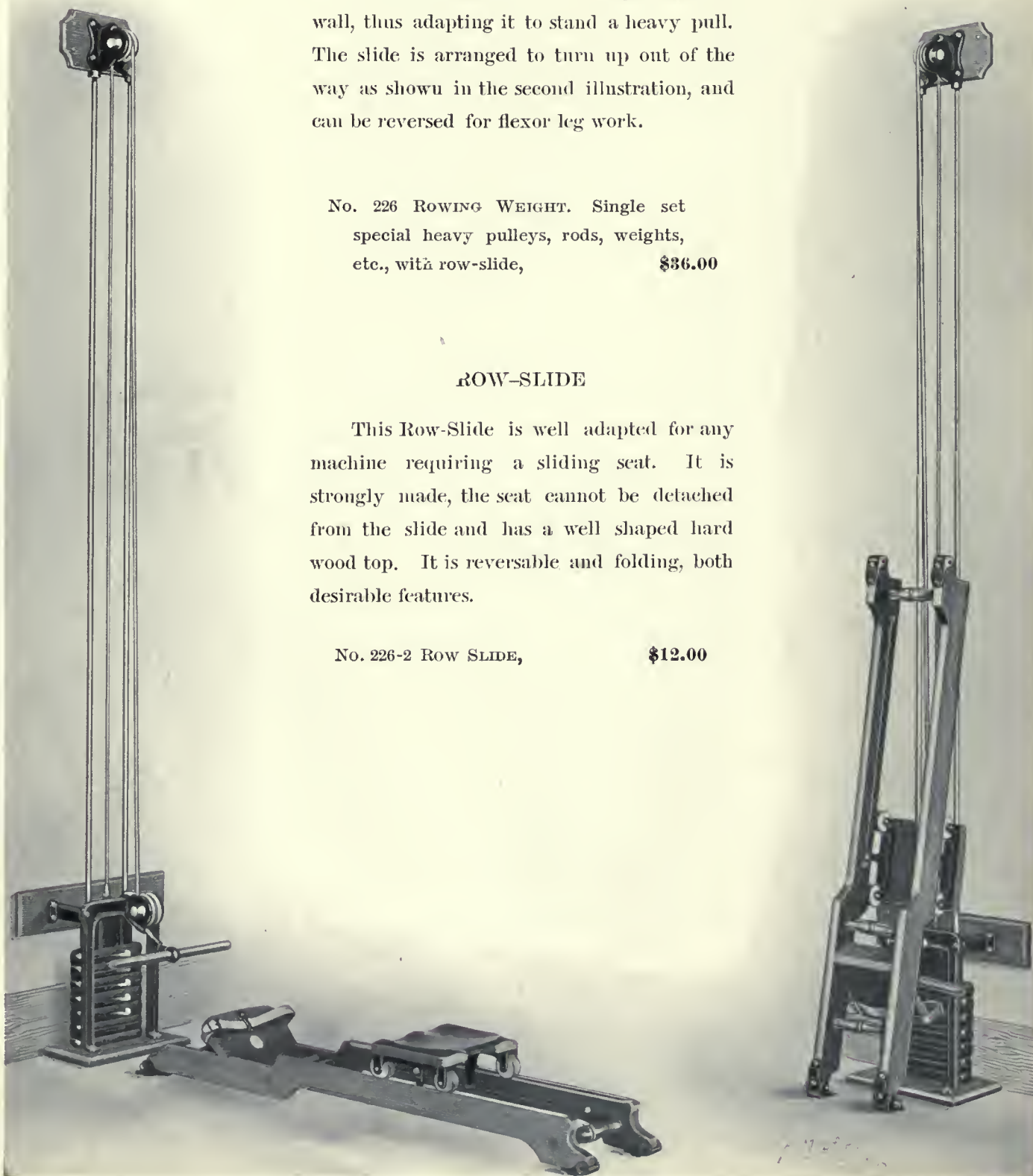
This machine has been specially designed for severe gymnasium use. The weights are large, eight pounds each, with a large strong weight carrier on the under-lift principle. Large rods are provided to guide the weight, and the pulleys are large to prevent undue wear of the rope. The lower pulley swivels, and is raised from the floor by a bracket which extends around the weights to the wall, thus adapting it to stand a heavy pull. The slide is arranged to turn up out of the way as shown in the second illustration, and can be reversed for flexor leg work.

No. 226 ROWING WEIGHT. Single set
special heavy pulleys, rods, weights,
etc., with row-slide, **\$36.00**

ROW-SLIDE

This Row-Slide is well adapted for any machine requiring a sliding seat. It is strongly made, the seat cannot be detached from the slide and has a well shaped hard wood top. It is reversible and folding, both desirable features.

No. 226-2 ROW SLIDE, **\$12.00**





No. 100



No. 110

INTERCOSTAL MACHINES

Three different forms of handles may be attached to this pulley weight as illustrated above.

No. 248 Intercostal, a split handle requiring a height of eleven feet. Shown on end of machine.

No. 100 Chest Expander (lateral) requiring a height of thirteen feet.

No. 110 Chest Developer (anterio-posterior), requiring a height of fourteen feet.

Either of the above handles will be furnished at the price listed below

INTERCOSTAL MACHINE

No. 248 INTERCOSTAL MACHINE, "Standard."

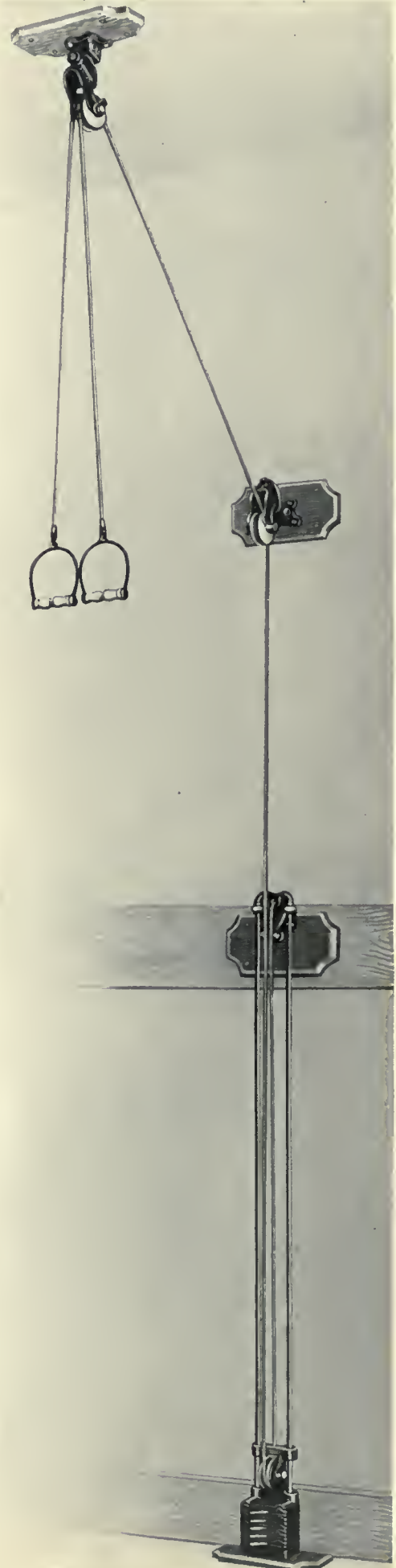
Single set of pulleys, rods, weights, etc.,
as specified on page 6 (with split handles), **\$16.00**

No. 248 INTERCOSTAL MACHINE, "Standard"

Special. Single set of pulleys, rods,
weights, etc., as specified on page 7,
(with split handles), **28.00**

BRACKETS

Where the height of room is too great for the attachment of ceiling pulleys we furnish brackets, similar to that shown on No. 65 Pulley Weight.



TRAVELING PARALLEL

The machine (shown in the illustration) is made very heavy to sustain the pressure applied to the extended arms in lifting the heavy weights. The carriage slides on strong cold rolled steel rods and has self-lubricating bearings. The weight is of the under-lift type; easy to change.

No. 275 TRAVELING PARALLEL,

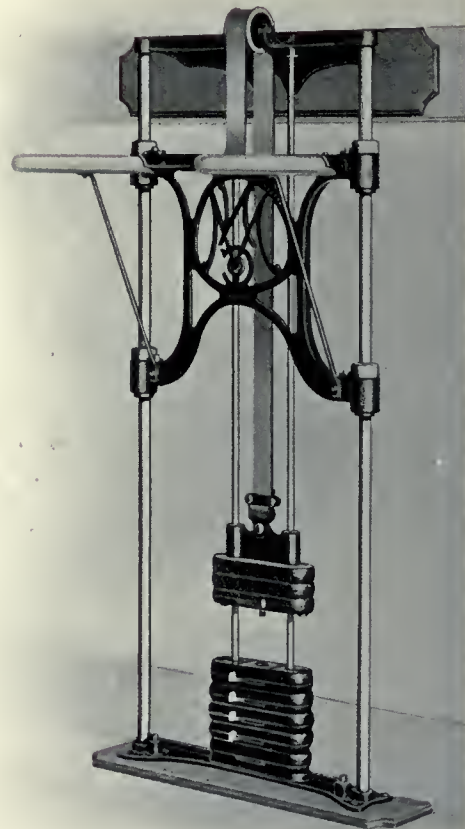
\$60.00

QUARTER CIRCLE

The back board may be swung up out of the way or removed entirely, if desired.

No. 271 QUARTER CIRCLE, "Standard." Double set of pulleys, rods, weights, etc., with curved back-board, as specified on page 6,

\$32.00



No. 271 QUARTER CIRCLE, "Standard" Special. Double set of pulleys, rods, weights, etc., with curved back-board, as specified on page 7,

\$46.00



QUARTER CIRCLE ATTACHMENT

This Quarter Circle Attachment is hinged to the chest weight back-board, and may be removed or swung up out of the way when not in use.

No. 271-1 Quarter

Circle arc, \$16.00

DUPLEX PULLEY WEIGHT

The ingenious use of both ends of the rope, first introduced by us and more fully described on page four, enables us to furnish several comprehensive and practical Pulley Weights. The two most desirable forms are listed on this page; other forms are illustrated elsewhere, but usually any desirable combination of two machines can be made.

INTERCOSTAL CHEST WEIGHT

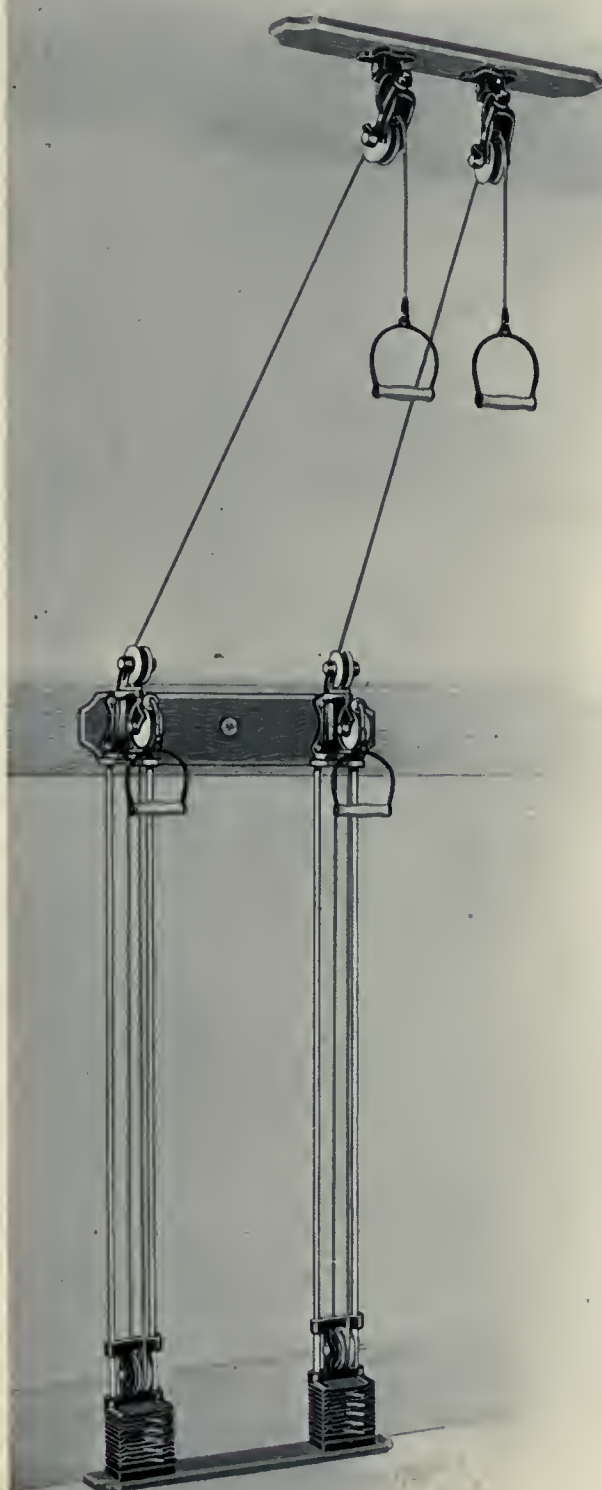
No. 260 DUPLEX INTERCOSTAL CHEST WEIGHT, Standard. Double set pulleys, rods, weights, etc., as specified on page 6. **\$26.00**

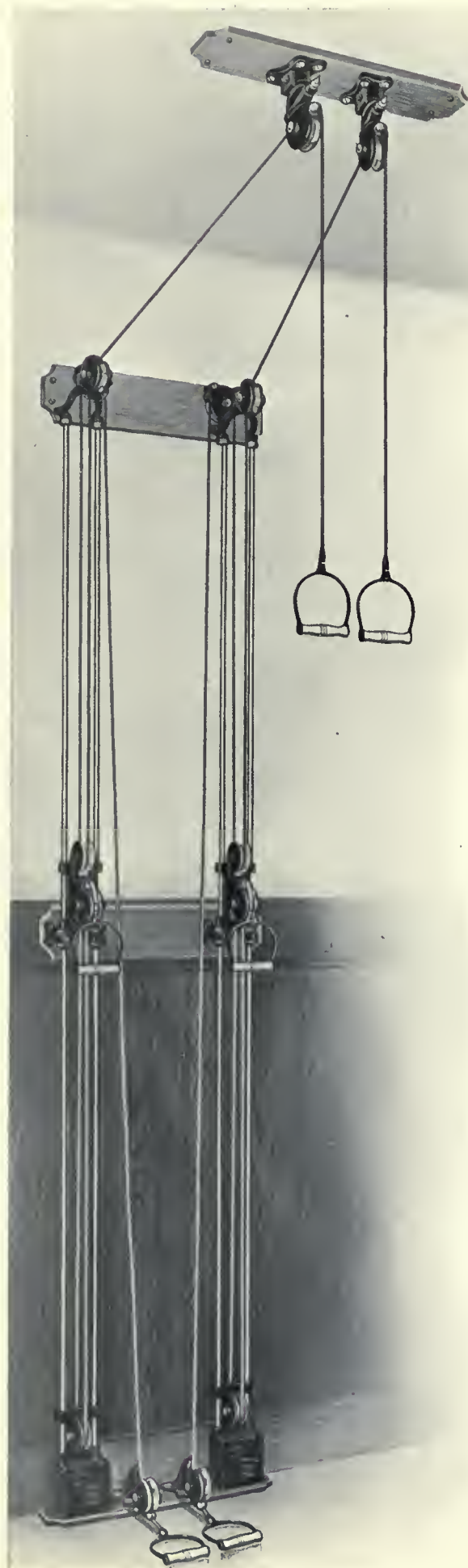
No. 260 DUPLEX INTERCOSTAL CHEST WEIGHT, Standard Special. Double set of pulleys, rods, weights, etc., as specified on page 7, **48.00**

BACK AND LOIN CHEST WEIGHT

No. 265 DUPLEX BACK AND LOIN CHEST WEIGHT, Standard. Double set of pulleys, rods, weights, etc., as specified on page 6, **\$26.00**

No. 265 DUPLEX BACK AND LOIN CHEST WEIGHT, Standard Special. Double set pulleys, rods, weights, etc., as specified on page 7, **48.00**





TRIPLEX UNDER-LIFT

PULLEY WEIGHT

Patented March 24, 1903.

The Triplex Pulley Weight is designed to economize room. It adds a third handle, or combines the intercostal, chest and back-and-loin pulleys in one machine without any adjustment of ropes, catches, etc., to change from one to the other. The result is obtained in the Triplex with less pulleys, and consequent smoother action, than in any other machine. The Triplex has every improvement in detail and mechanical construction of previous machines, and represents the "climax of pulley weight construction." Its action is as fine as silk.

In use the chest weight rope passes over the chest pulley, and under the weight pulley to a knot back of the bracket, in the usual manner.

The intercostal rope passes over the intercostal pulleys, down under the pulley of the chest weight bracket, from this up over a pulley at the top of the rods, and down to the back-and-loin pulleys.

Pulling the chest handle lifts the weight.

Pulling either the intercostal or back-and-loin handles lifts the chest weight swivel block (which slides on the upper rods) and the weight by means of the chest weight rope.

TRIPLEX PULLEY WEIGHT

No. 269 "STANDARD," double set pulleys, rods, weights, etc., as specified on page 6, **\$36.00**

No. 269 "STANDARD" SPECIAL, double set pulleys, rods, weights, etc., as specified on page 7, **54.00**

The Triplex requires a height of ten feet from the floor to over the top pulley to admit of the intercostal handles being carried to the floor, a less height than is possible with any other principle. In rooms having high ceilings and no gallery, brackets may be used to hold the ceiling pulleys.



TRIPLEX DETAILS

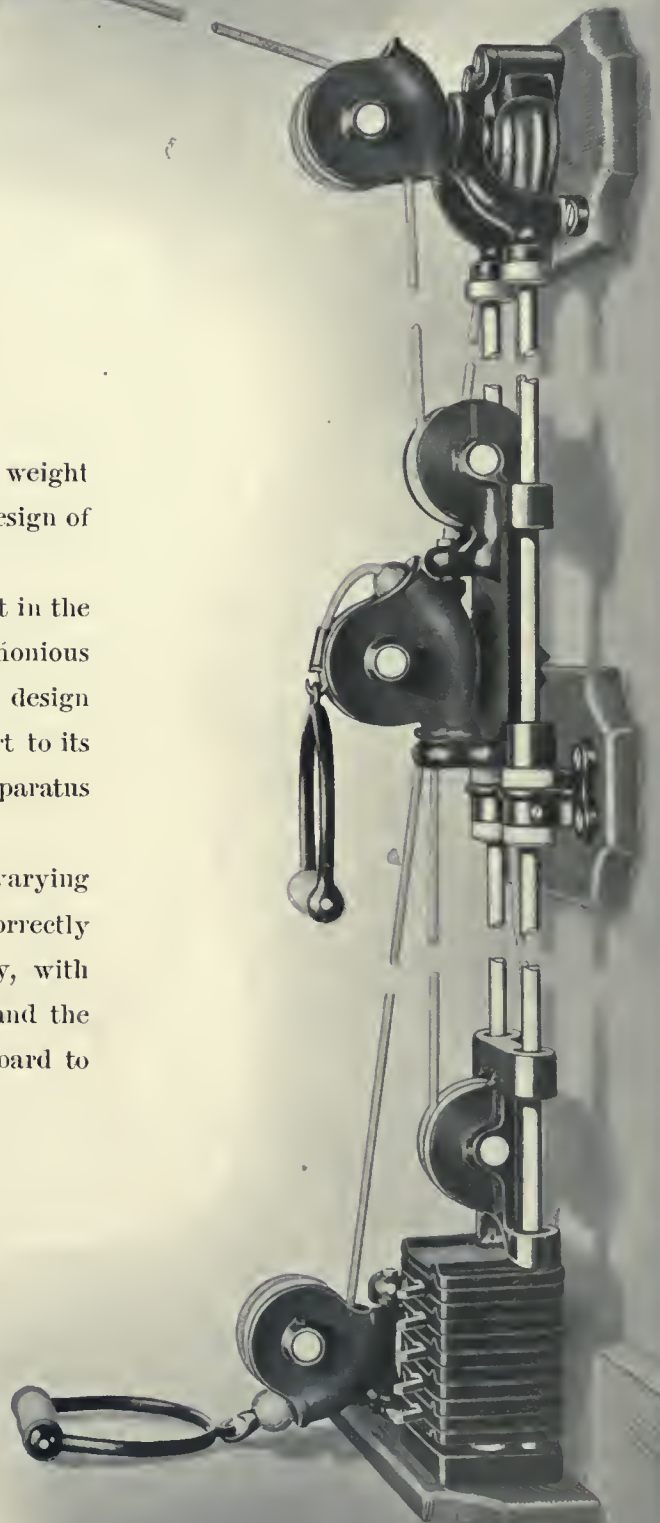
This illustration of details of the Triplex Pulley weight shows the thoroughness and care we put into the design of all our apparatus, particularly the pulley weights.

The illustration shows the Triplex Pulley Weight in the most simple and direct manner, and the harmonious design of the whole. Note the smooth, well-rounded design of the pulley blocks and the adaptability of each part to its purpose. These are features peculiar to our apparatus and are the result of long experience.

The ceiling pulley is adjustable to provide for varying rope angles. The top pulley also swings to lead correctly to the ceiling pulley. The swivel chest weight pulley, with its sliding block, is a fine example of neat design, and the swivel floor pulley reaches down over the floor board to draw the handles as close to the floor as possible.

The operation of the weights, run of the ropes, etc., is shown in the sectional cuts on page four.

NOTE:— The weight most used, i. e., the chest weight, is the simplest; it has a short rope, and in its use only two pulleys are used. When using the intercostal or floor pulley only three pulleys are used, the same as on the Duplex Pulley Weight.





TREADLE MACHINE

This machine consists of two levers connected to heavy weights with hinged shoes on the ends. The user should have the support of pipe stalls.

The weight and pulleys are our extra heavy design as used on rowing weights.

NO. 285 PEDAL MACHINE. Double set special heavy pulleys, rods, weights, etc., with pedals,

\$60.00

ABDOMINAL CHAIR

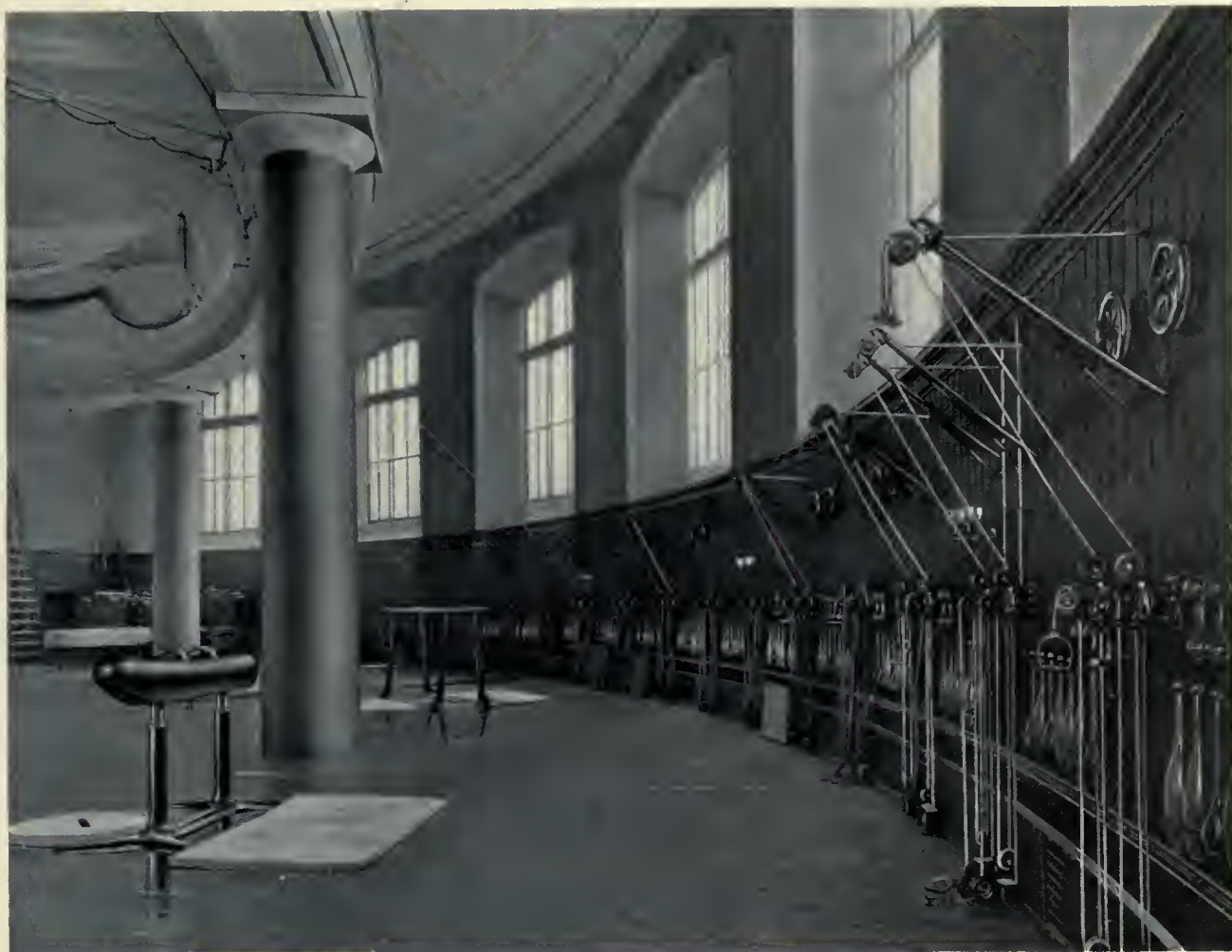
A compact machine, not requiring fastening, and very effective for its purpose.

The seat is hollowed out to sustain and hold the user comfortably. The pedals and back rest are adjustable. A latch, to hold the weights at about half travel, is provided for convenience in getting in and out. As a heavy, strong acting weight is required, the weights are used "single" (see No. 1 on page 4) and their travel made the entire height of the chair. Plain weights are used and a shelf provided for spare weights.

NO. 280 ABDOMINAL CHAIR. Double set special pulleys, rods, weights, etc.,

\$60.00





“STANDARD” PULLEY WEIGHTS

IN COLUMBIA COLLEGE GYMNASIUM

THE Pulley Weights listed in the preceding pages have been adopted for use by the leading gymnasiums in the world.

“Standard” as made by the Narragansett Machine Company, or equal thereto, is the specification for all United States army posts, and for the public schools of many cities. They are almost universally used by that great chain of organizations—the Young Men’s Christian Associations—who require for their exacting work the best of apparatus. Their branches in Japan, China, India, France and England, have put a veritable belt of “Standard” Pulley Weights around the world.

Adaptability, durability and design are the reasons why “Standard” apparatus is so generally used.

CHEST BARS

The illustration shows a Double Set (four bars); we list Single (two), Double (four), and Triple (six) sets.

Plain bars go under a gallery or ceiling twelve feet or less high; for greater heights the braced bars (shown herewith) should be ordered. Other arrangements to suit varying conditions can be made.

On one pair, the bars will be placed twenty inches apart on centres. In greater numbers they will be graduated nineteen and twenty-two inches apart, the double bar shown being 20 x 22 x 19.

PLAIN CHEST BARS

No. 340 CHEST BARS, two bars,	\$8.00
No. 340A CHEST BARS, four bars,	16.00
No. 340B CHEST BARS, six bars,	20.00

ABDOMINAL STRAP

AND CLEAT FOR USE
ON CHEST BARS

No. 347 ABDOMINAL STRAP and cleat,	\$6.00
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For Chest Bar and Ladder, see "Ladders".

No. 342A CHEST BARS.

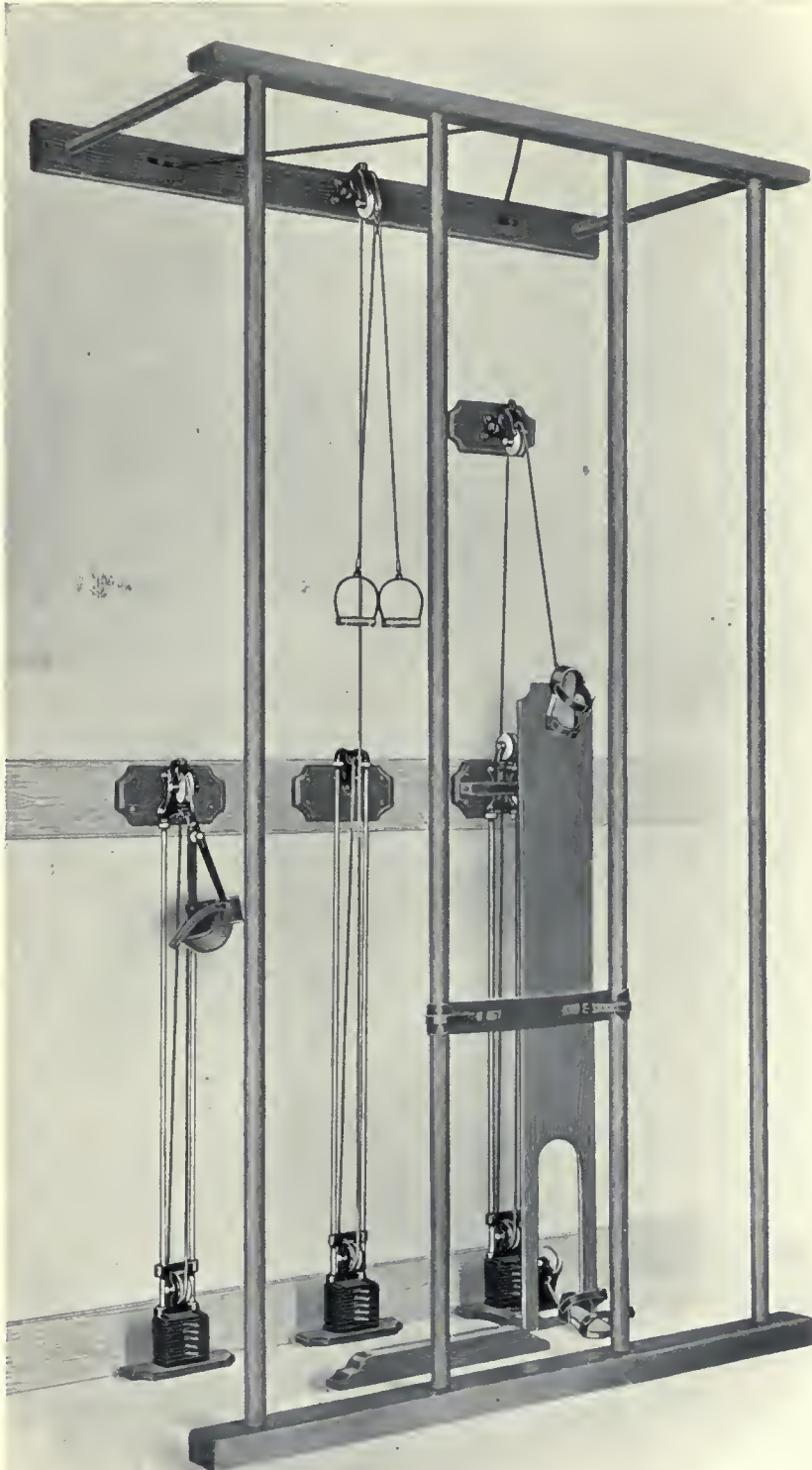
No. 342A CHEST BARS

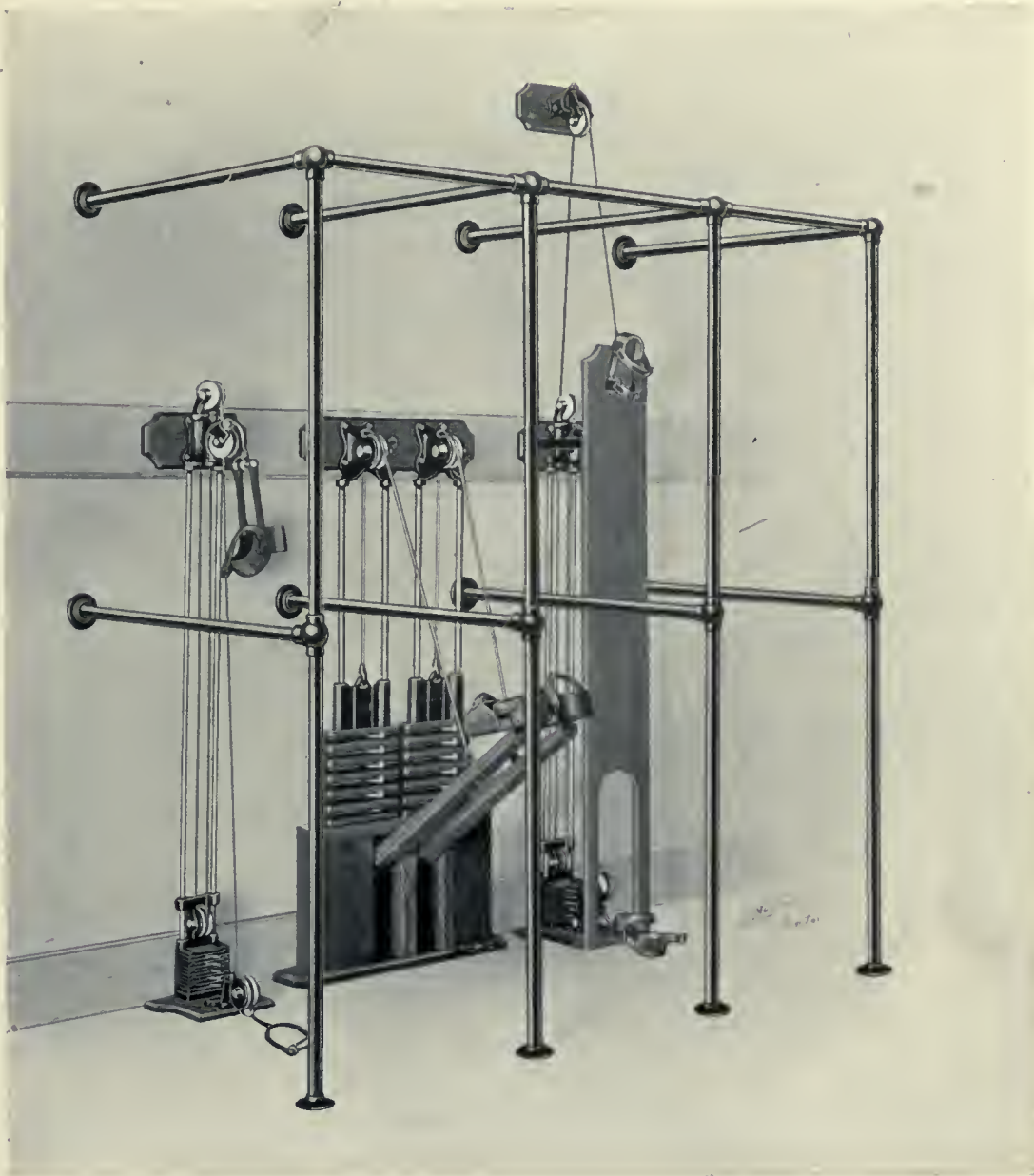
This Chest Bar is braced at the top and is adapted to room greater than twelve feet high.

The neck machine, giant pulley, and leg pulley shown above in connection with this bar, will be found listed elsewhere.

BRACED CHEST BARS

No. 342 CHEST BARS, two bars,	\$12.00
No. 342A CHEST BARS, four bars,	20.00
No. 342B CHEST BARS, six bars,	26.00





PIPE STALLS

The Standard Pipe Stalls are made of one and one-quarter inch outside diameter pipe, with globe fittings, and are finished in baked japan or made of polished and lacquered brass.

Their principal use is to support a person while using such apparatus as neck machine, pedal machine, leg pulley, etc.

They are listed by the stall, two sections forming one stall; each succeeding section adds a stall. The illustration shows four sections or three stalls.

No. 349 PIPE STALLS, japanned iron,
per stall,
Each additional section,

\$10.00
5.00

No. 349 B PIPE STALLS, polished brass,
per stall,
Each additional section,

\$50.00
25.00



WRIST MACHINE

These machines may be furnished double as shown, or single, i.e., one on a board. They should be secured to a wall fifty-four inches from the floor to centre.

No. 325 FRICTIONAL WRIST MACHINE, double, \$24.00



WRIST ROLL

This Wrist Roll can be placed either in a horizontal or vertical position. The brackets hold it well out from the wall, allowing ample room for the hand and wrist back of the roll. The friction is smooth and constant, acting in either direction, and can be adjusted to give any required resistance.

To set up, fasten to a wall with the centre forty-five inches from the floor.

No. 327 FRICTIONAL WRIST ROLL, frictional, \$16.00

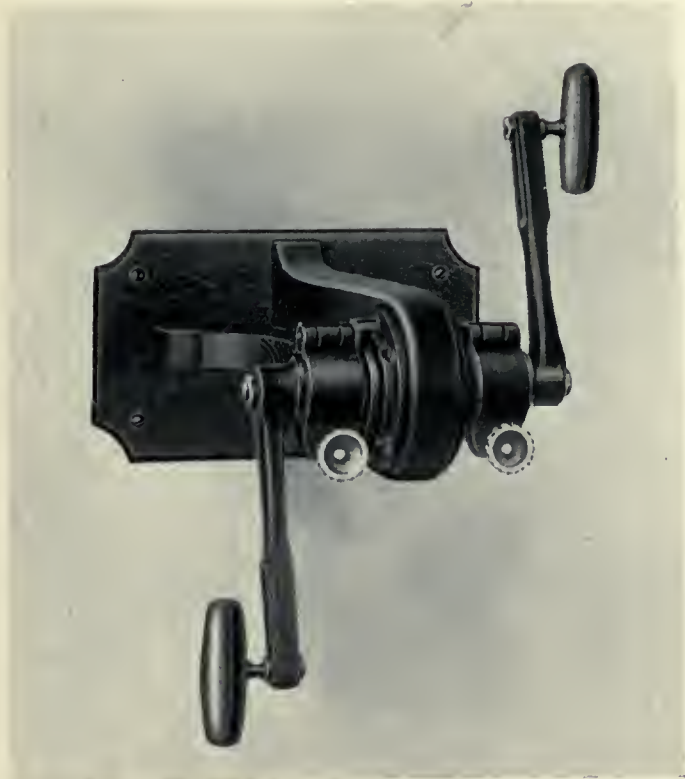
ANKLE MACHINE

A side-way and rocking shoe mounted on the same base.

A stool or chair is needed in using this machine. A substantial one will be found listed under stools.

No 326 FRICTIONAL ANKLE MACHINE, \$28.00





ARM MACHINE

This machine consists of two frictional brakes, secured to opposite sides of a strong bracket, and is provided with arms and handles. The resistance and action of each arm is entirely independent.

To set up, secure strongly to the wall about fifty inches from the floor to centre.

NO. 328 FRICTIONAL ARM MACHINE,
\$40.00

These two frictional machines, made to the specifications of Captain H. J. Koehler, of the United States Military Academy at West Point, have been made a part of the equipment of all army gymnasiums.

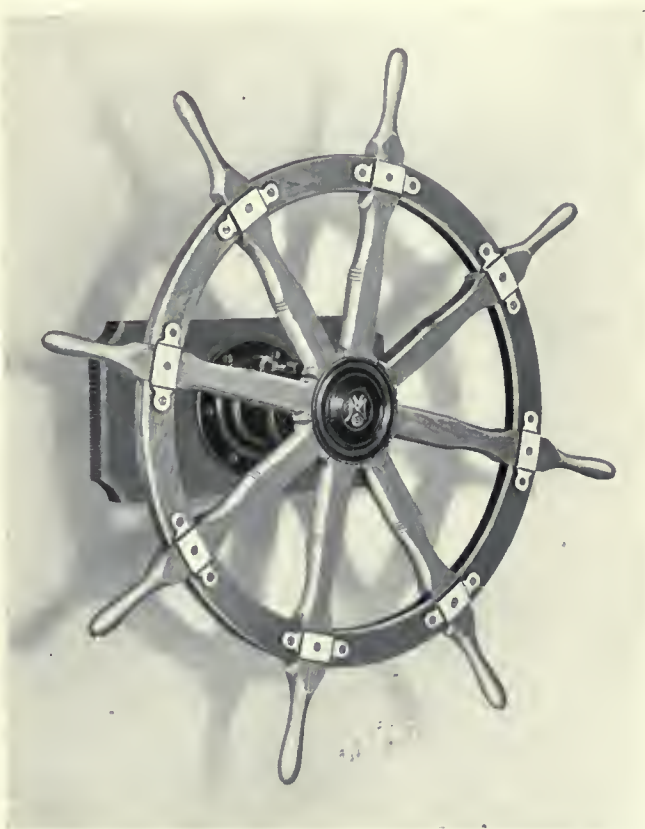
The frictional machines on this and the preceding page have all the same brake, consisting of a clamp faced with wood which acts on a turned iron drum and is controlled by a hand wheel. This device has proved to be smooth in action and easily controlled.

LEG MACHINE

This machine consists of a frictional brake secured to the floor and provided with an arm on which is pivoted a shoe.

NO. 329 FRICTIONAL LEG MACHINE, \$28.00





NAUTICAL WHEEL

An adaptation of the steering wheel of a vessel. The friction brake, that forms the resistance, is simple and durable. The arms or spokes are supported by the rim. The machine presents a fine appearance, the arms being ash, the rim cherry and the mountings polished brass.

No. 320 NAUTICAL WHEEL, frictional,
48 inches diameter, **\$60.00**

To set up, secure strongly to the wall about four feet from the floor to the centre.

WRESTLING MACHINE

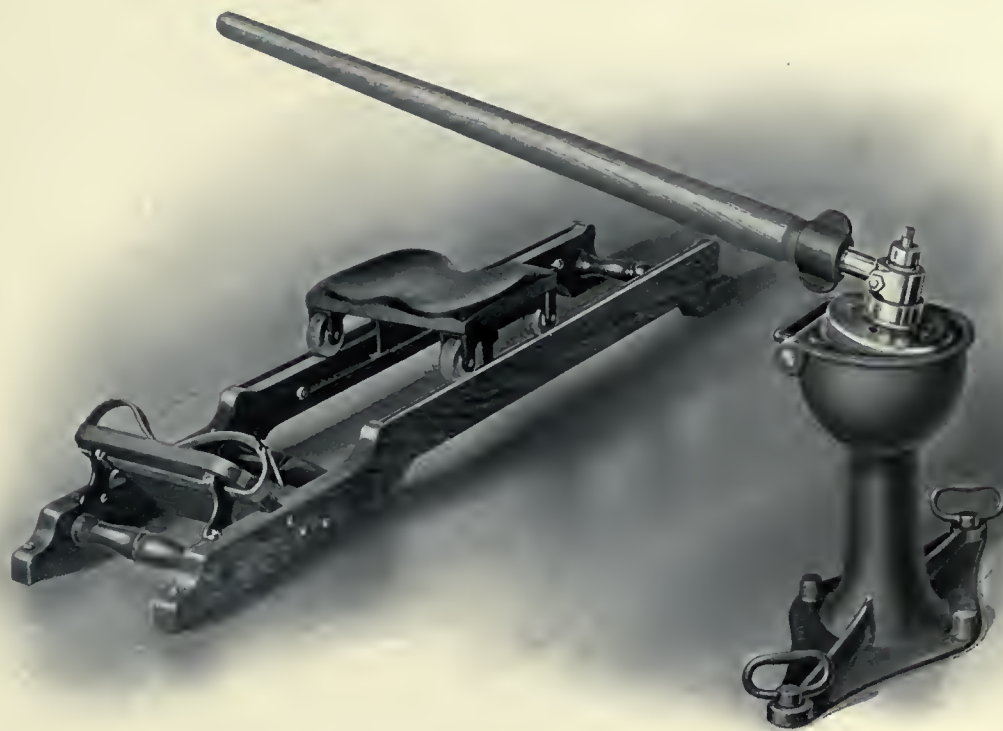
A modification of the Nautical Wheel. The greater space between the spokes permits different movements.

No. 321 WRESTLING MACHINE, frictional,
48 inches diameter, **\$40.00**

Set up same as Nautical Wheel.

Where resistance to rotation is the only requirement a friction brake is the most simple and effective device. The brake used on the above two machines is specially designed to produce smooth, even resistance and be easily adjusted.





HYDRAULIC ROWING MACHINES

In this machine a liquid resistance to rotation offers the closest approximation to actual rowing yet obtained. The oar turns to allow feathering and is balanced by the bowl.

The illustration below shows the blade and cover of the bowl lifted up showing the blade and its valves and the partitions in the bowl.

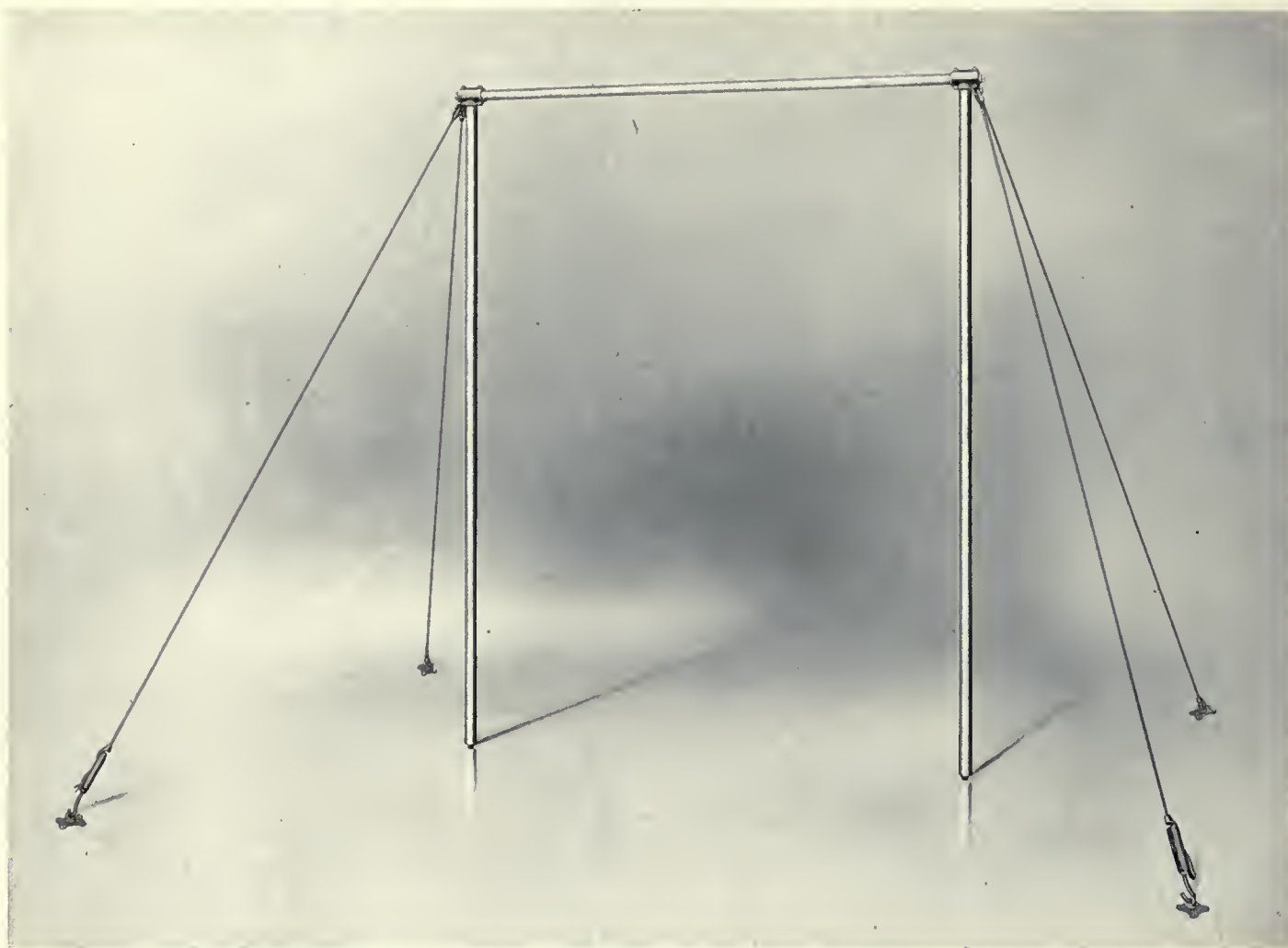


When the oar is pulled, the blades rotate between the partitions in the bowl, forcing the liquid through the valve in the centre of the blade, which controls the pressure. On the "return" the liquid passes freely through the ball valves in the blades.

The pressure on the oar is governed by the valve in the centre of the shaft. A key for this valve is furnished and can be kept by the person in charge, thus preventing the pressure being changed. All of a set of machines may easily be set at a uniform pressure, and when so set will not require altering afterwards, as greater or less resistance can be got by varying the speed of rowing.

NO. 335 HYDRAULIC ROWING MACHINE,	
one oar with sliding seat,	\$56.00
NO. 334 HYDRAULIC ROWING MACHINE,	
one oar, no seat,	44.00
NO. 336 HYDRAULIC ROWING MACHINE,	
two oars, with one sliding seat,	100.00

Patented Sept. 2, 1890. Feb. 3, 1891.



HORIZONTAL BAR

This is the simplest form of Horizontal Bar. Being provided with our instantaneous turnbuckles, it can be taken down or set up in a fraction of a minute.

It has pipe uprights, wire rope guys, with improved hooks, two instantaneous turnbuckles, floor plates with screws, etc.

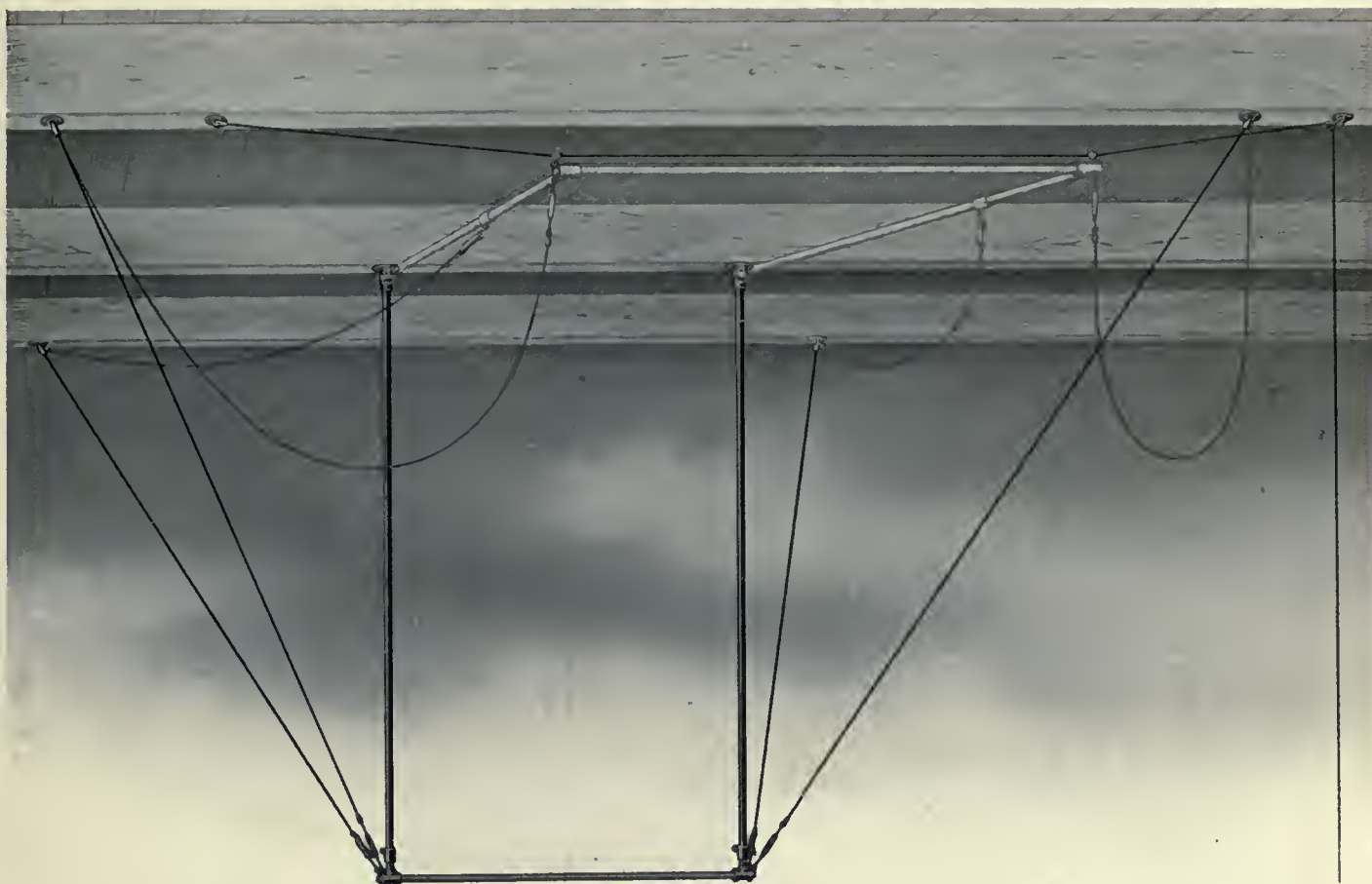
NO. 362 HORIZONTAL BAR, 6 feet, "Standard" steel core hickory bar,	\$30.00
NO. 364 HORIZONTAL BAR, 6 feet, "Standard" steel bar,	30.00

"STANDARD" BARS

"Standard" Bars are used in making up all our horizontal and vaulting bars.

The "Standard" Steel Bar is six feet long, and one and one-eighth inches in diameter. Other sizes will be made to order.

The "Standard" Steel Core Hickory Bar is six feet long, made from selected clean white hickory of good growth, bored from one end, and shrunk on the steel core. The steel core is made from a special high grade of imported steel having the same elastic coefficient as the hickory. All steel cores have specially fine threaded ends and are provided with double check nuts for horizontal bars and long hexagon nuts for vaulting bars.



SUSPENDED HORIZONTAL BAR

For gymnasium use this is a practical bar. It is out of the way, having no guys or posts coming down to the floor. The bars listed below are for height not exceeding twenty-four feet. Special prices will be quoted for other heights.

NO. 367 SUSPENDED HORIZONTAL BAR, 6 foot "Standard" steel core hickory bar,	\$40.00
NO. 369 SUSPENDED HORIZONTAL BAR, 6 foot "Standard" steel bar,	40.00

These prices do not include the swing up attachments, which are listed below.

SUSPENDED HORIZONTAL BAR SWING UP

This bar is made to swing up close to the ceiling, as shown in phantom lines, when it is desirable to clear the room for games.

NO. 367A HORIZONTAL BAR, NO. 367 made to swing up,	\$50.00
NO. 369A HORIZONTAL BAR, NO. 369 made to swing up,	50.00

Horizontal bars are also made double or triple, i. e., with the bars parallel and about seven feet apart, or they may be placed end to end in a line. We will be pleased to send sketches of such special bars.

SWING UP ATTACHMENT

The hinge joints, turnbuckle, hoisting tackle, etc., shown above can be applied to any Suspended Horizontal Bar.

NO. 367-21 SWING UP ATTACHMENT,	\$15.00
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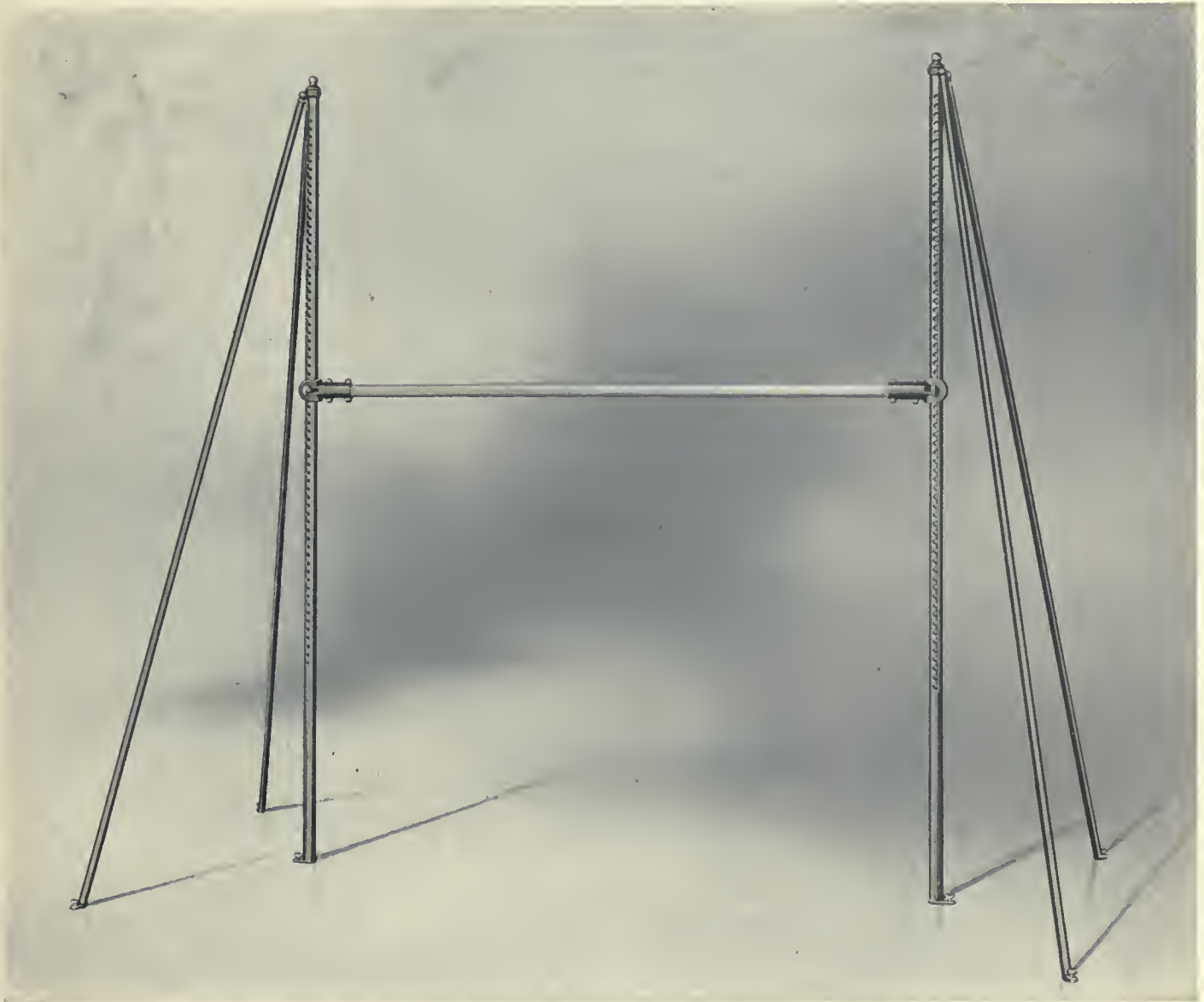


SIX GUYED BAR

This makes a simple, cheap and efficient bar, much prized by gymnasts on account of its peculiar elasticity.

Two instantaneous turnbuckles provide for quick detachment from the floor, after which it is easily hoisted up out of the way.

No. 372 SIX GUYED HORIZONTAL BAR, 6 foot "Standard" steel core hickory bar, with hoisting tackle complete,	\$36.00
No. 374 SIX-GUYED HORIZONTAL BAR, 6 foot "Standard" steel bar, with hoisting tackle complete,	36.00



COMBINED HORIZONTAL AND VAULTING BAR

This is the most popular bar we make. It can be quickly put up or taken down ; does not occupy much floor space, is adjustable from two to seven and one-half feet, and the uprights being held firm by braces, it is very strong and rigid.

No. 377 COMBINED HORIZONTAL AND VAULTING BAR, 6 foot "Standard" steel core hickory bar,	\$40.00
No. 379 COMBINED HORIZONTAL AND VAULTING BAR, 6 foot "Standard" steel bar,	40.00

SEMI BRACED HORIZONTAL AND VAULTING BAR

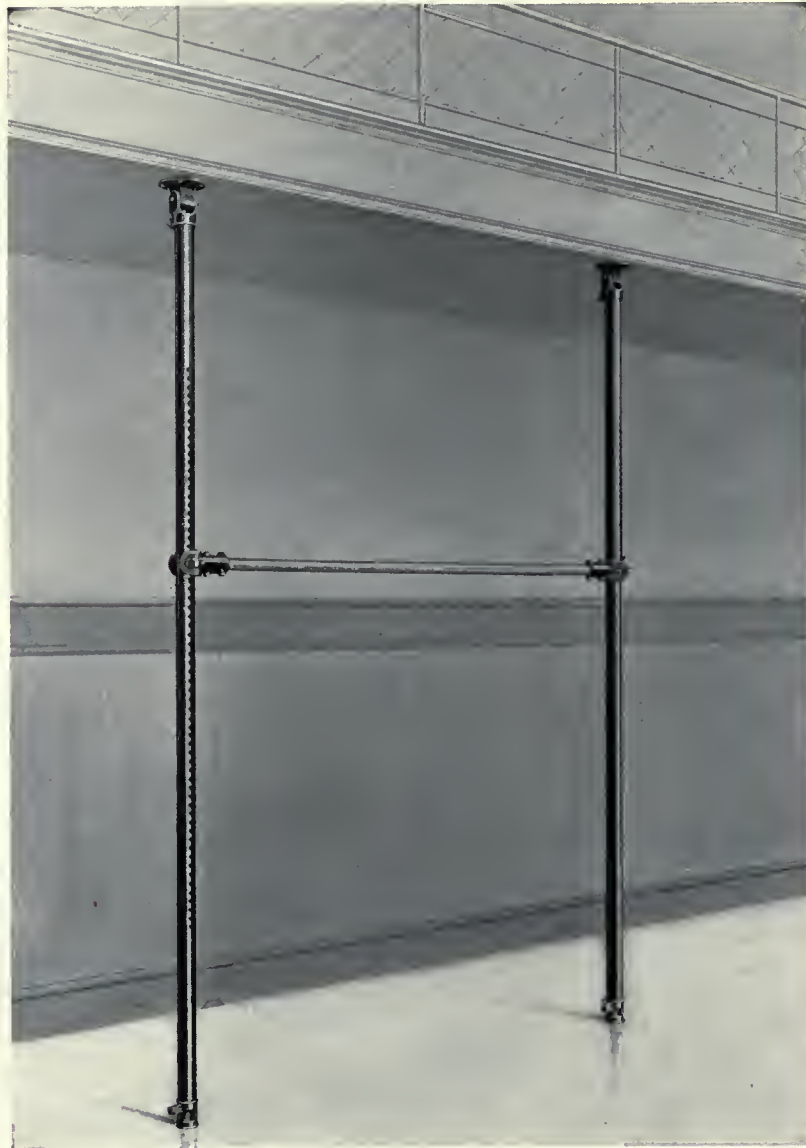
This bar is as illustrated above except one post is fastened to the wall or a post.

No. 377A SEMI GUYED HORIZONTAL AND VAULTING BAR, 6 foot "Standard" steel core hickory bar,	\$35.00
No. 379A SEMI GUYED HORIZONTAL AND VAULTING BAR, 6 foot "Standard" steel bar,	35.00

When a vaulting bar is used for turning it is sometimes desirable to secure the bar tighter than can ordinarily be done by a pin. We have a clamp cap for this purpose that can be fixed on any of our vaulting bars. On the above bar the uprights have to be made larger to accomodate the clamp cap, consequently it costs more to apply it than it does on other bars.

CLAMP CAP, (see page 37) extra,

\$10.00



VAULTING BAR

The Vaulting Bar shown above is the most practical form when there is sufficient height and width of gallery. It is the acme of simplicity.

FIXED VAULTING BAR

This bar is similar to the illustration, except that it is fixed at the floor and top, that is, it does not swing up.

No. 392 VAULTING BAR, 6 foot "Standard" steel core hickory bar,	\$40.00
No. 394 VAULTING BAR, 6 foot "Standard" steel bar,	40.00

SWING UP VAULTING BAR

This bar has swing joints at the top of the posts and locking bolts at the bottom as shown. Hooks to hold the posts when swung up or ropes and blocks to hoist them up, as conditions may require, will be furnished.

No. 392A SWING UP VAULTING BAR, 6 foot "Standard" steel core hickory bar,	\$55.00
No. 394A SWING UP VAULTING BAR, 6 foot "Standard" steel bar,	55.00

These bars all have strong tube uprights, with numbered holes one inch apart, from two to seven and one-half feet. They have our "Standard" bars with adjustable "Standard" leather lined pin caps. The pin and clamp caps are illustrated on page 38.



BRACED VAULTING BAR

This form of bar is adapted to galleries less than ten feet high, or where there is not space enough under the gallery for a start. It may also be used in lofty rooms by bracing the bar out seven feet from the wall. The following bars are braced out four feet from the gallery.

FIXED BRACED VAULTING BAR

As illustrated above, except without provision for swinging up.

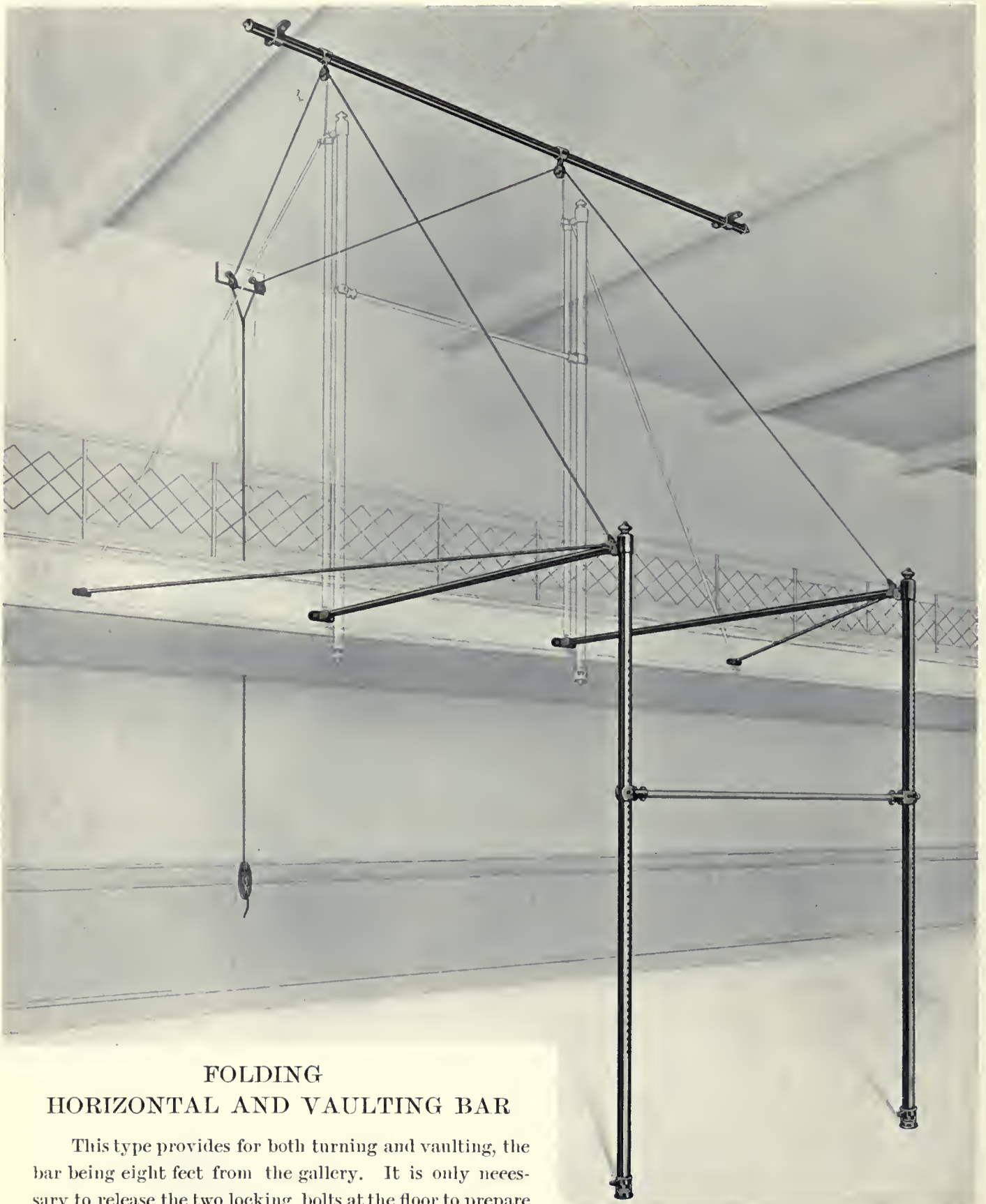
NO. 397 FIXED BRACED VAULTING BAR, 6 foot "Standard" steel core hickory bar,	\$45.00
NO. 399 FIXED BRACED VAULTING BAR, 6 foot "Standard" steel bar,	45.00

SWING UP BRACED VAULTING BAR

As shown above, having swing joints that permit the posts to swing up under the gallery, and locking bolts. Hooks or hoisting tackle for sustaining the posts when swung up are provided as conditions require.

NO. 397A SWING UP BRACED VAULTING BAR, 6 foot "Standard" steel core hickory bar,	\$65.00
NO. 399A SWING UP BRACED VAULTING BAR, 6 foot "Standard" steel bar,	65.00

The Vaulting Bars on this and the preceding page are designed for rooms or galleries twelve or less feet high. Prices will be quoted for greater heights.



FOLDING HORIZONTAL AND VAULTING BAR

This type provides for both turning and vaulting, the bar being eight feet from the gallery. It is only necessary to release the two locking bolts at the floor to prepare the bar for hoisting out of the way, as shown. If desired, this bar may be placed against a wall. The bar as listed below has Pin Caps. See page 37 for Clamp Caps.

NO. 397 B FOLDING BAR, 6 foot "Standard" steel core hickory bar,
NO. 399 B FOLDING BAR, 6 foot "Standard" steel bar,

\$80.00
80.00

BAR CAPS

"STANDARD" PIN CAP

FOR VAULTING BARS



This cap is used on all Vaulting Bars. It is leather lined and is held by a pin passing through cap and post and held in place by a latch which makes it positive and safe.

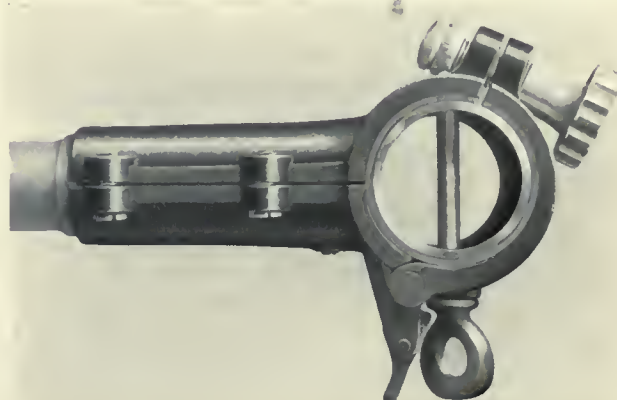
- No. 375-22 OPEN END VAULTING BAR CAP,
for $1\frac{5}{8}$ inch uprights, per pair, \$8.00
- No. 390-22 OPEN END VAULTING BAR CAP,
for $2\frac{3}{8}$ inch uprights, per pair, 8.00

"STANDARD" CLAMP CAP

FOR VAULTING BARS

In addition to the pin a leather lined clamping cap entirely surrounds the post, which can be set to move easily, or clamped to hold the bar perfectly tight. This cap furnished with Vaulting Bars for \$5.00 extra.

- No. 380-22 CLAMP VAULTING BAR CAP,
for $2\frac{3}{8}$ inch uprights, per pair, \$16.00



"STANDARD" HORIZONTAL BAR CAPS

- No. 365-22 "STANDARD" HORIZONTAL BAR CAP for $1\frac{5}{8}$ inch uprights, as used
on Nos. 366 and 367 bars, per pair, \$4.00
- No. 370-22 "STANDARD" SIX GUYED BAR CAP as used on No. 372 bar, per pair, 4.00

"STANDARD" BARS

"Standard" Bars are six feet long, measured on the bar. See page 30 for description.



- No. 364-15 "STANDARD" 6 FOOT STEEL CORE HICKORY BAR,
to fit any "Standard" cap, \$12.00
- No. 364-35 6 FOOT STEEL CORE HICKORY BAR, with
square ends ready to be fitted to any cap, 12.00
- No. 364-45 "STANDARD" 6 FOOT STEEL BAR, $1\frac{1}{8}$ inches
diameter, to fit any "Standard" cap, 6.00

"STANDARD" LOCKING BOLT

This Bolt is used to secure all Vaulting Bar posts to the floor, that swing or hoist up. The central bolt holds the post firm and by locking under the post prevents its lifting. It is locked or unlocked by the foot.

It is such carefully studied details as this that make "Standard" Apparatus the most practical for use, and convenient to handle.

INSTANTANEOUS TURNBUCKLES

This turnbuckle is used on all our Bars when quick release is necessary. Figures 1 and 2 show the turnbuckle closed and opened and Figure 3 shows the turnbuckle made to attach to guys having hooks on them.

No. 379-1 INSTANTANEOUS TURNBUCKLE, Fig. 1, each,	\$2.50
No. 379-2 INSTANTANEOUS TURNBUCKLE, Fig. 2, each,	2.50
No. 379-5 PLAIN TURNBUCKLE, each,	.80



FIG. 1

FIG. 2



LUNGE STRAP

A strong leather belt having cotton ropes attached to the sides by swivels.

No. 540 LUNGE STRAP,	\$8.00
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SUSPENDED LUNGER

Consisting of a Lunge Strap, having the side ropes carried over pulleys on the ceiling to a large single rope, which is held by the instructor.

No. 545 SUSPENDED LUNGER,	\$16.00
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SAFETY STRAP

Used in practicing on the horizontal bar. Made of strong webbing, lined with soft leather and twisted, right and left, to form a comfortable loop for the wrist.

No. 379-12 SAFETY STRAP, per pair,	\$2.00
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BUCKLED SAFETY STRAP

The buckle permits easy removal of the strap from the bar. The stiff leather collar protects the bar and prevents binding.

No. 379-13 SAFETY STRAP, with buckle, per pair,	\$3.00
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CLIMBING APPARATUS

"Standard" Climbing Apparatus is specially designed for safety, correct size and durable material.

All top fastenings are made by shackles double pinned. We have special fastenings for clamping to iron beams, to pipe beams (as shown on this page), or to wooden beams. The proper fastenings will be furnished at the prices quoted.

Ropes, poles, etc., are made to the accepted size of one and one-half inches diameter or four and one-half inches circumference.

Ropes are made with four strands of a selected long fibre Manilla that wears smooth and is very durable. Italian hemp ropes will be furnished if preferred. Prices on application.

CLIMBING ROPE

- No. 550 CLIMBING ROPE, manilla, 18 feet or less, with knot, **\$8.00**
 No. 551 CLIMBING ROPE, manilla, 18 feet or less, no knot, **6.00**

KNOTTED CLIMBING ROPE

The knots are braided around and through the rope, eight inches apart, to form the "rise" and "rest" for the climber.

- No. 555 KNOTTED CLIMBING ROPE, manilla, 18 feet or less, with bottom knot, **\$18.00**

BALL ROPE

The Ball Rope, or "Rosary" as it is sometimes called, is a climbing rope with balls secured twelve inches apart. The balls are of turned maple.

- No. 560 BALL ROPE, manilla, 18 feet or less, with bottom knot, **\$20.00**

CLIMBING POLES

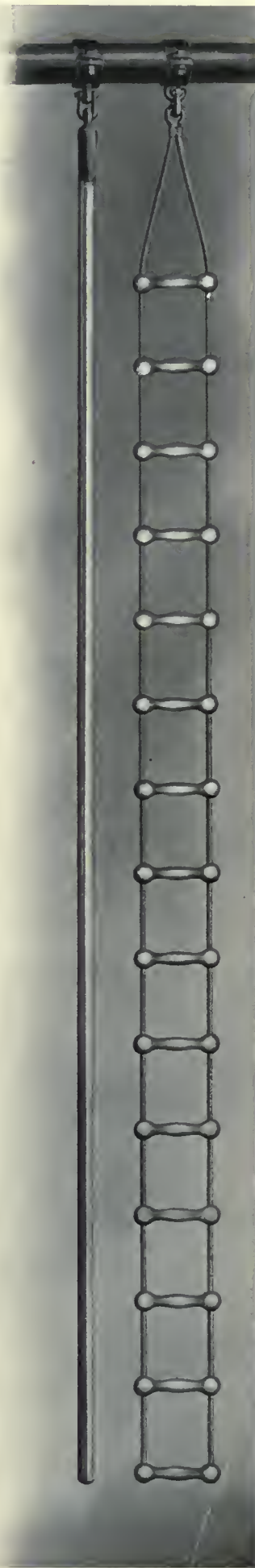
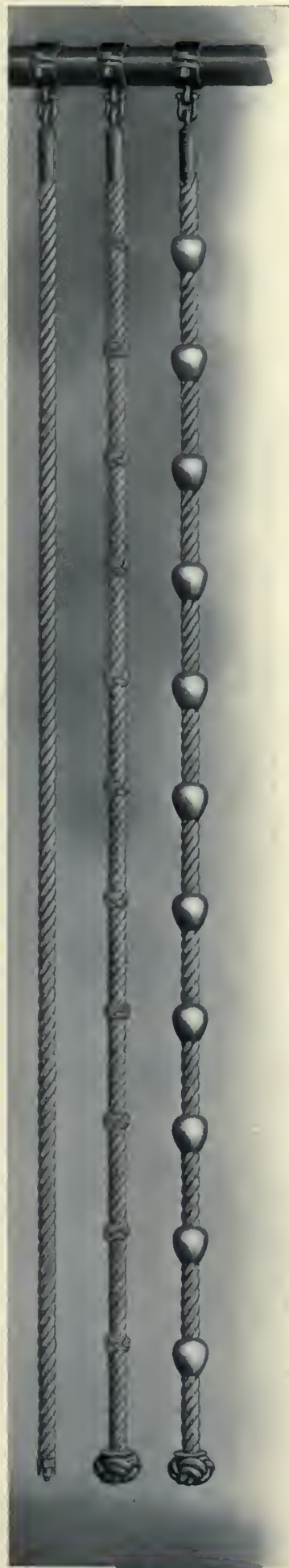
The "Standard" Climbing Poles are made of selected Oregon Pine, cut following the grain, filled, finished smooth and shellac'd.

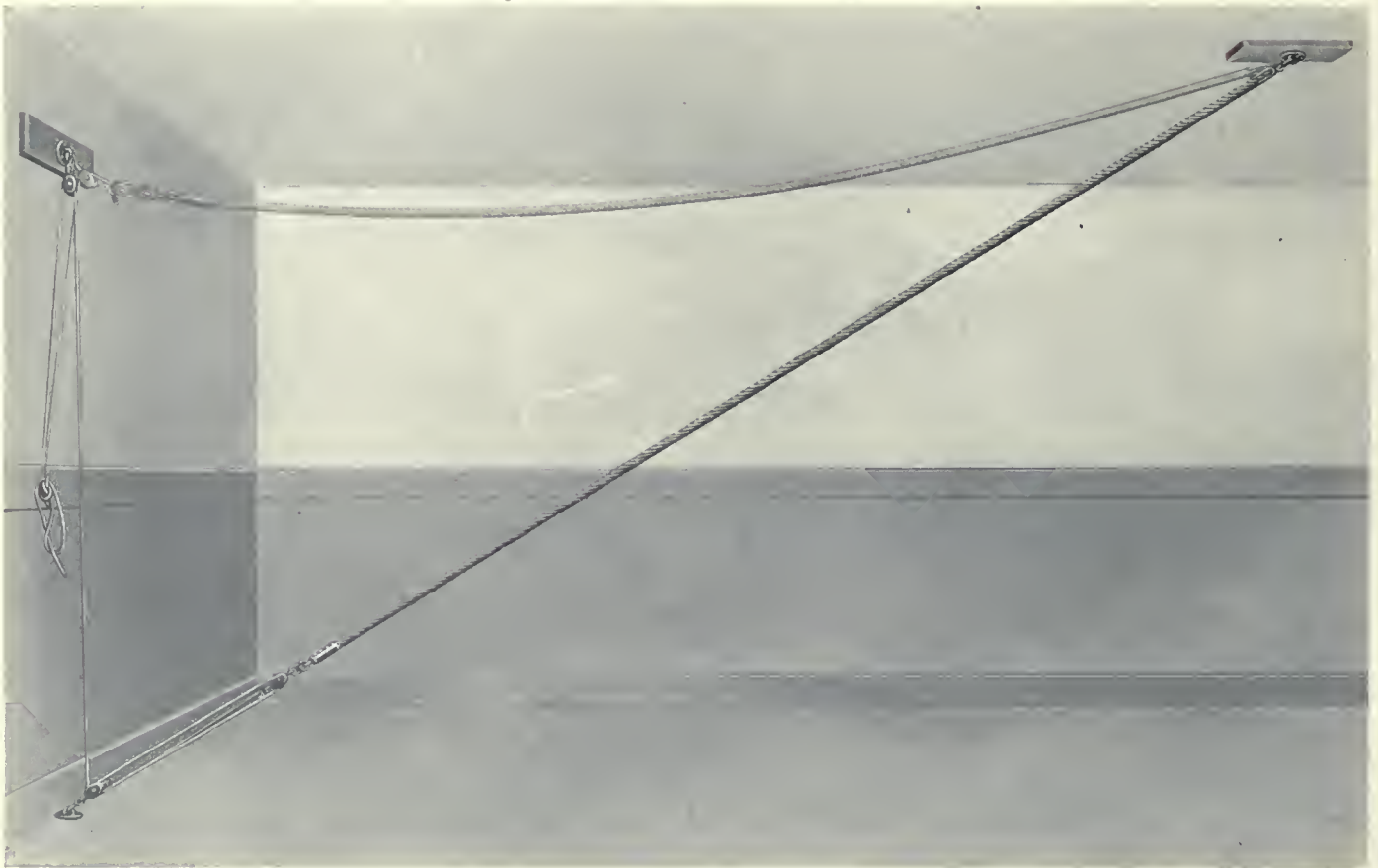
- No. 570 CLIMBING POLE, 18 feet or less, 1½ inch diameter, **\$5.00**

ROPE LADDER

The rounds are hickory, the rope passing through the ends of the rounds and being secured by a long pin. Experience has proved this fastening to be the strongest and most durable. The rounds are turned of such a size and shape as to fit the hand, and offer the best possible grasp. They are placed eight inches apart.

- No. 565 ROPE LADDER, 18 feet or less, 6 inches wide, **\$12.00**





POSSE INCLINED ROPE

This style of Inclined Rope can be quickly loosened and hoisted out of the way, as is shown by the lighter shaded rope above.

The tightening rope, having a downward pull, and passing over double blocks, tightens the climbing rope without over-straining it.

No. 554 POSSE INCLINED ROPE, 24 feet or less, with block and hoisting fixtures, complete, **\$18.00**

FIXED CLIMBING APPARATUS

To hold ropes and poles tant, and prevent their swinging, we insert the strap shown herewith. The strap may be quickly detached from the floor.

No. 553 VERTICAL ROPE, fixed by strap at bottom, **\$10.00**
 No. 571 VERTICAL POLE, fixed by strap at bottom, **8.00**

TRAVELING ROPE

By means of the trolley shown herewith, a rope may be moved just ahead of the climber, on an inclined rope, to provide for descent at any part of the climb. The rope from the top of the trolley passes up parallel to the climbing rope, over a block and down where it may be held.

No. 554A TRAVELER FOR INCLINED ROPE, **\$20.00**



No. 557 AUTOMATIC CLIMB

This machine applies the principle of graduated resistance to climbing, the resistance being from zero to about four hundred pounds. It is strongly and durably made with ample bearing and frictional surfaces. Self-oiling bearings having large detachable oil reservoirs are provided. The frictional adjustment is simple and cannot easily get out of order. It is brought down to within reach of the floor by a light cord which turns a spindle that clamps the friction drum. This spindle has ball bearings. The rope is the standard climbing size, one and one-half inches in diameter.

No. 557 AUTOMATIC CLIMB, \$60.00

SLIDING POLE

The Sliding Pole is a quick means of descending from the gallery.

The "Standard" Sliding Pole is made of polished brass tube, extra heavy, and is secured at the top by braces to the walls.

No. 581 SLIDING POLE. Brass with japanned iron top and brace, \$44.00

SLIDING POLE RAIL

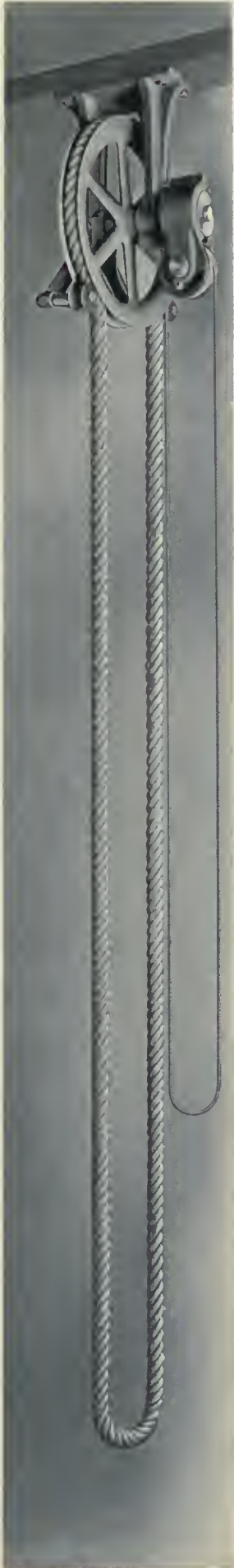
This Rail protects the opening and leaves narrow passage at the sides for access to the pole.

No. 582 SLIDING POLE RAIL. Japanned iron top, \$16.00

SLIDING POLE MAT

A Round Mat three feet in diameter and three inches thick. It has a hole in the centre opening to the side by a slit and closed by a strap and buckle.

No. 973 SLIDING POLE MAT. 3 inches felt, covered with white duck, \$16.00





No. 606 STANDARD HORSE

The Standard Horse and Buck were designed to fill the demand for first class apparatus, easy to adjust, standing firm on large heavy bases, and easy to move.

The mechanical principle used in adjusting is simple and safe. There are no frictional or ratchet adjustments. The crank for raising and lowering the horse is placed in the centre and springs up into the horse body when not in use. On the buck the crank lies close to the post and is out of the way.

The handles are centrally attached and easily removable leaving only two holes in the body. They are four and one-half inches high, of the open pattern, padded and leather covered. There are four swivel casters with roll bearings, which are thrown into action by pressing a lever and on which the horse or buck can easily be moved in any direction. Each bearing point of the base on the floor is protected by a "Standard" leather shoe.

The body may be made necked (as illustrated above), or straight. It is covered with the best light-colored, oak-tanned leather.



No. 625 STANDARD BUCK

No. 605 STANDARD HORSE, straight body,	\$120.00
No. 606 STANDARD HORSE, necked body,	120.00
No. 625 STANDARD BUCK,	90.00



No. 612 HORSE

The Horse and Buck shown on this page are built on the lines of the German horse with improvements in construction. This form, known as the four-legged, is preferred by many experts; it stands firm and the base increases as the body is raised. It is covered with first quality leather. The feet have "Standard" leather shoes.

The legs of both Horse and Buck are of large steel tube, telescoping, and arranged so the inner tube cannot turn in the outer. The latch is an improvement over the pin, as it does not project to bruise any one that might strike it, and, being attached to the leg, cannot get lost. Under the latch are castors that come into action when the inner section of the legs are pushed completely in and held up by the latch.

The Horse is adjustable from thirty-seven to fifty-seven inches high, and may have a straight or necked body. The Buck has the same method of adjustment.

No. 612	HORSE, straight body,	\$70.00
No. 613	HORSE, necked body,	70.00
No. 632	BUCK,	48.00

The bodies of the above and Standard Horse and Buck are alike, the difference being wholly in the base and legs. The handles are removable, padded and open, thus affording a good grasp for the hands. They are four and one-half inches high, and have a central attaching bolt, that leaves only one hole in the body for each handle.



No. 632 BUCK

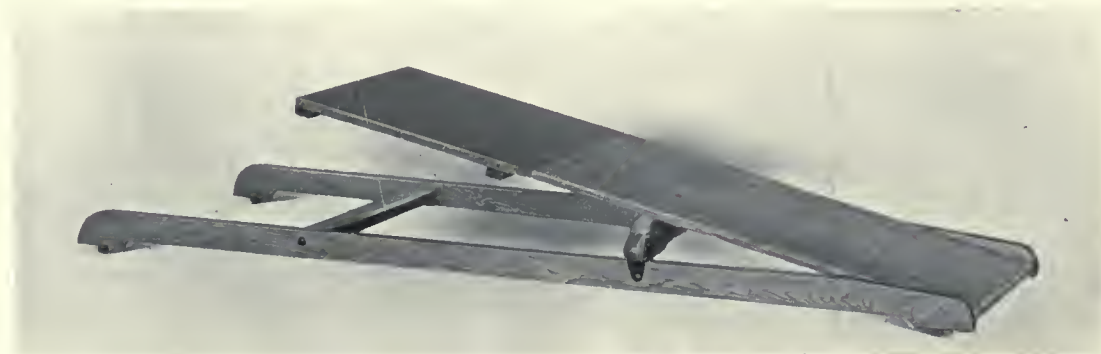


BATTEAU BOARD

The "Standard" Battean Boards and Bars are made of carefully selected seasoned ash. We have special facilities for getting the stock best adapted for this purpose. We take great care to give the proper dimensions, curves, etc., to these boards and bars to secure the strength and elasticity necessary to the severe strain to which they are put.

The upper half of the board is covered with rubber cloth glued on. The board is secured to the bar by leather straps tightened by wedges, and a similar device holds the ends of the bar in the pedestals.

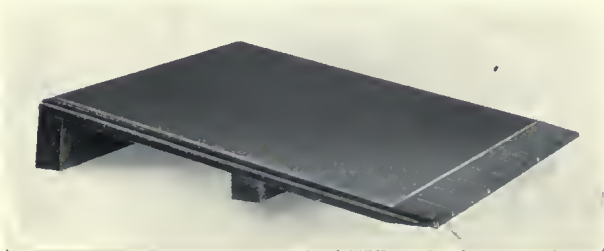
No. 640 BATTEAU BOARD, 6 x 1½ feet with bar and pedestal complete, **\$40.00**



INCLINED SPRING BOARD

A well known form of Spring Board, indispensable in any fairly equipped gymnasium. We are making it of the best material throughout, using New England ash, grown in the granite hills where it absorbs the strength of the rocks. It is light and can easily be moved to any part of the gymnasium and yet stands firm without fastening. All spring boards are rubber shod and will be rubber covered on the upper end unless otherwise ordered.

No. 649 INCLINED SPRING BOARD, 6 feet x 22 inches, **\$30.00**



BEAT BOARD

Made of oak, covered with thick cork carpet and rubber shod.

No. 662 BEAT BOARD, 30 x 25 inches, **\$6.00**



BOUNCING SPRING BOARD

A Platform Spring Board, made very strong and substantial to stand the severe strain to which it is subject. The base is made of oak and the board of selected New England ash. It is very elastic, yet firm in its bearings and supports. It may be used as director's platform by blocking it from underneath.

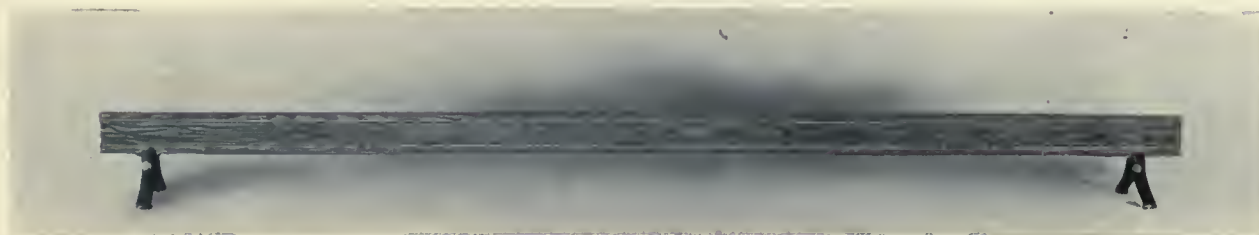
No. 655 BOUNCING SPRING BOARD, 8 x 3 feet,	\$45.00
No. 656 BOUNCING SPRING BOARD, 6 x 2 feet,	35.00



SPRING BEAT BOARD

An Elastic Beat Board for use in connection with horse, buck and parallel bars. The elasticity is not great, just enough to avoid the solidity of the ordinary board and to give a slight impetus to the user.

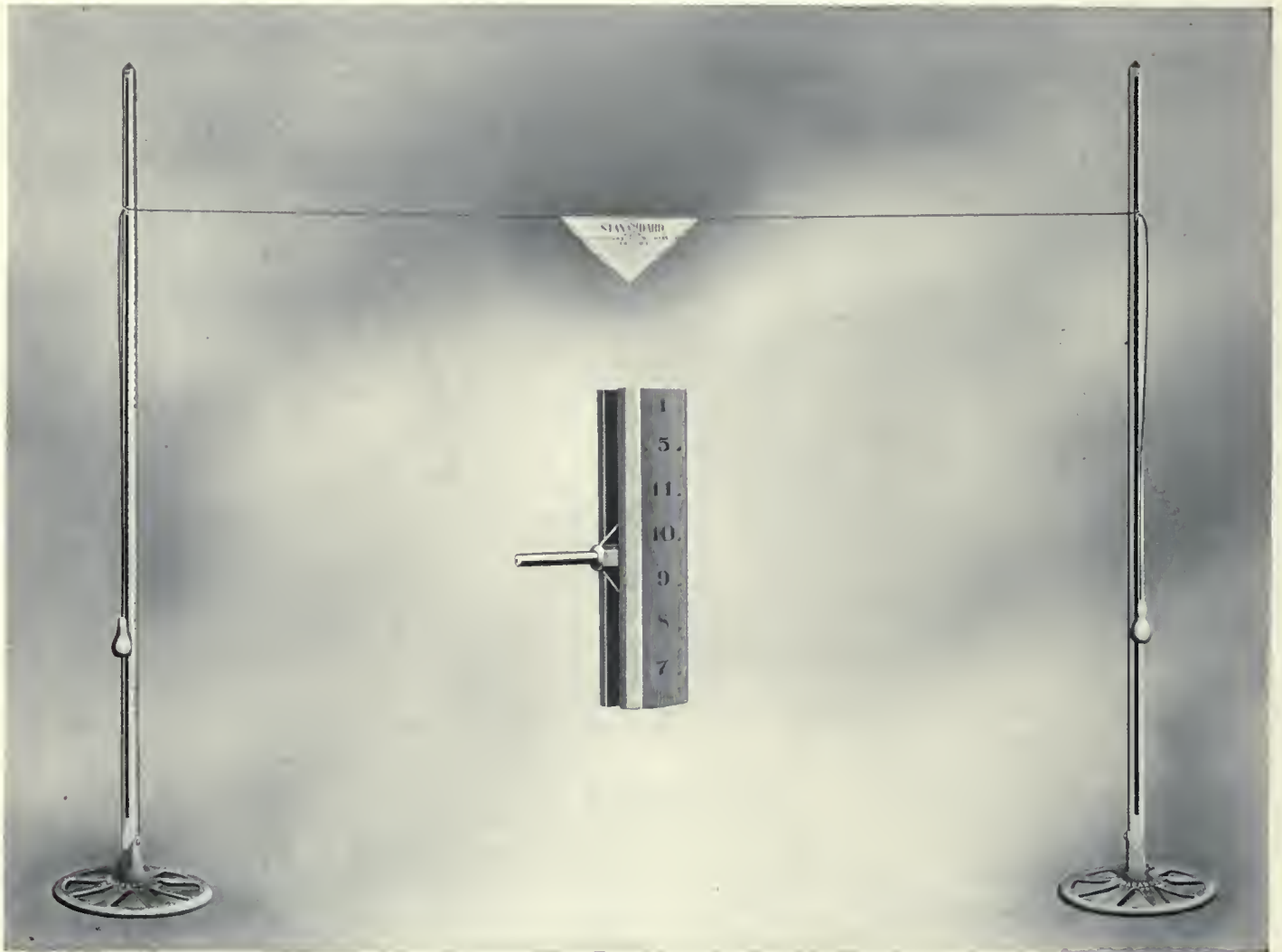
No. 663 SPRING BEAT BOARD, 4 feet x 20 inches,	\$15.00
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BALANCE BOARD

This board is made I shape in section, two inches wide at the edges, the object being to obtain lightness consistent with the strength and stiffness required.

No. 667 BALANCE BOARD, 12 feet long,	\$5.00
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JUMP STANDS

The "Standard" Jump Stands have a light spruce post grooved for a sliding pin — as shown in detail — which can be set at any height but cannot be removed or lost. The feet are distinguished from inches by a different color. The base is of iron, heavy, so it cannot easily be upset, and round with a rounded edge, so it can be rolled along on the floor.

No. 670 JUMP STAND, 6 feet high,	\$10.00
No. 671 JUMP STAND, 8 feet high,	10.00
No. 672 JUMP STAND, 10 feet high,	12.00

JUMP STAND CORD

With triangular target and rubber plummets attached, same as furnished with all Jump Stands.

No. 670-1 JUMP STAND CORD	\$2.00
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JUMP STICKS

Preferred, by some, to the cord and plummets.

No. 676 JUMP STICKS, one dozen (12) 8 feet long,	\$3.00
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One dozen Jump Sticks will be furnished in place of the cord and plummets, if desired.



ADJUSTABLE JUMP STANDS

This Jump Stand is designed especially for Pole Vaulting, although it is well adapted for jumping and other lower work. The iron bases are of the same form, but larger than those used on our "Standard" Jump Stands; the uprights are made of well-dried maple; the sliding rod has a pin at each end, and the fixed posts are numbered on their opposite sides to correspond with these pins. It is only necessary to adjust one screw to raise the stick to the highest point.

There are no metal tubes used in the construction of these stands that are likely to become bent and refuse to slide the first time that stands are upset; and the bases are so large and heavy that there is little danger of upsetting them.

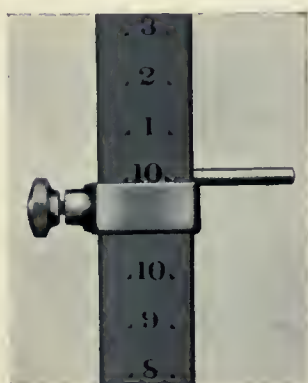
No. 674 HIGH JUMP STAND, adjustable, 1 to 12 feet,

\$30.00

POLE VAULTING BOARD

This is indispensable for indoor vaulting to protect the floor and prevent the spikes from slipping. It is made of small blocks of soft wood placed end up, nailed and glued. The soft wood centre has an oak frame with iron corners and a high back to prevent the spike slipping over. The board is inclined from $2\frac{1}{2}$ inches at the front to $4\frac{1}{2}$ inches at the back, and has rubber feet to prevent its slipping.

This form and construction offers the best surface for holding the spike, and wears the longest.



SLIDE AND PIN

No. 698 POLE VAULTING BOARD, 24 in. wide, 36 in long,

\$16.00

VAULTING POLES

Years of experience have demonstrated that vaulting poles made from selected spruce are the lightest and safest.

The "Standard" Vaulting Poles are planed by hand, from the finest spruce obtainable, to sizes that use has proved to be correct for grasp and balance.

Special attention has been given to the spikes. The socket or cap, that fits the end of the pole, is drawn sheet steel, and the tip that is brazed to it, turned steel, hollowed to make it light. It is light, protects the end of the pole, and is adapted for either in or out door work.

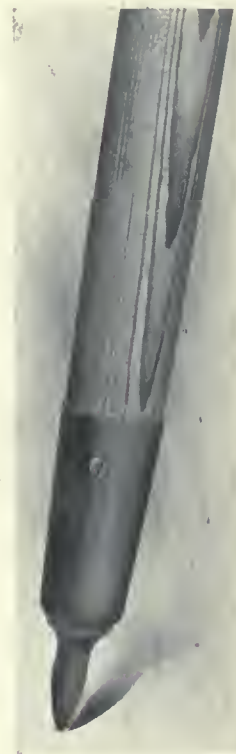
LIST OF "STANDARD" VAULTING POLES

No. 691, 8 feet, weight 3 $\frac{1}{4}$ pounds,	\$3.00
No. 693, 10 feet, weight 4 pounds,	4.00
No. 695, 12 feet, weight 5 pounds,	5.00
No. 697, 14 feet, weight 6 pounds,	6.50
No. 699, 16 feet, weight 7 pounds,	8.00

VAULTING POLE RACKS

To keep poles straight they should be laid on racks, not leaned in a corner. The racks listed below may be screwed on a wood or sheathed wall. For brick walls they should be mounted on strips. Three racks hold a pole.

No. 690-2 VAULTING POLE RACKS, per set of three,	\$0.40
No. 690-3 VAULTING POLE RACKS, per set of three, mounted on oak,	.60



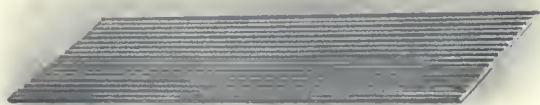
"STANDARD" SPIKE



LONG JUMP MAT

The Long Mat is used to get the "run" for pole vaulting, high jumps, etc., also to define the scratch line in broad jumps, and for fencing. It is made of corrugated rubber on a cloth back, weighing about three pounds per running foot, and will not slip on the gymnasium floor.

No. 677 LONG JUMP MAT, 36 inches wide, per foot,	\$0.80
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JUMP MAT

The Short Jump Mat is made of the same material as the Long Jump Mat, and is used to indicate the scratch line and to prevent slipping.

No. 678 JUMP MAT, 18 x 24 inches, each,	\$0.80
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JUMP FRAME

Used in children's classes for successive jumping.

No. 680 JUMP FRAME,	\$5.00
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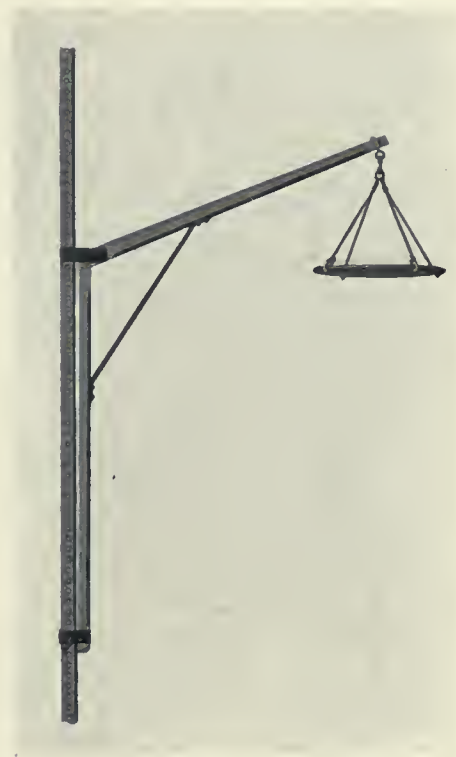


HITCH AND KICK

Arranged to go on the wall under a gallery. The pan is strong leather stitched over an iron rim. A steel chain connects to the index. The figures that indicate the height of the pan are read in the centre of the index, which is held by notches one inch apart.

No. 740 HITCH AND KICK,

\$12.00



HITCH AND KICK

Attachment for Jump Stands. May be used on any "Standard" non-adjustable Jump Stand.

No. 740A HITCH AND KICK ATT., **\$6.00**



HITCH AND KICK

Attachment for adjustable Jump Stand, No. 674.

No. 674A HITCH AND KICK ATT., **\$6.00**



TRAVELING RINGS

The rings shown above are attached to a pipe beam and provided with our Rocking Joint; but means for attaching to wooden beams or ceiling, or iron beams will be furnished at the same price.

No. 700 TRAVELING RINGS, with Rope, Rocking Joint, top attachment, etc. complete, each, **\$6.00**

The above price does not include the Pipe Beams. Estimates for them will be furnished when particulars are given.

Estimates and sketches showing means for adjusting rings or hoisting them out of the way will be made when full information regarding height, distance, etc., are furnished.

"STANDARD" RINGS

Our "Standard" Rings are an improved stirrup form with oval grasp and round corners. They are made of cast steel and carefully covered with good leather, cemented on so it will not slip.

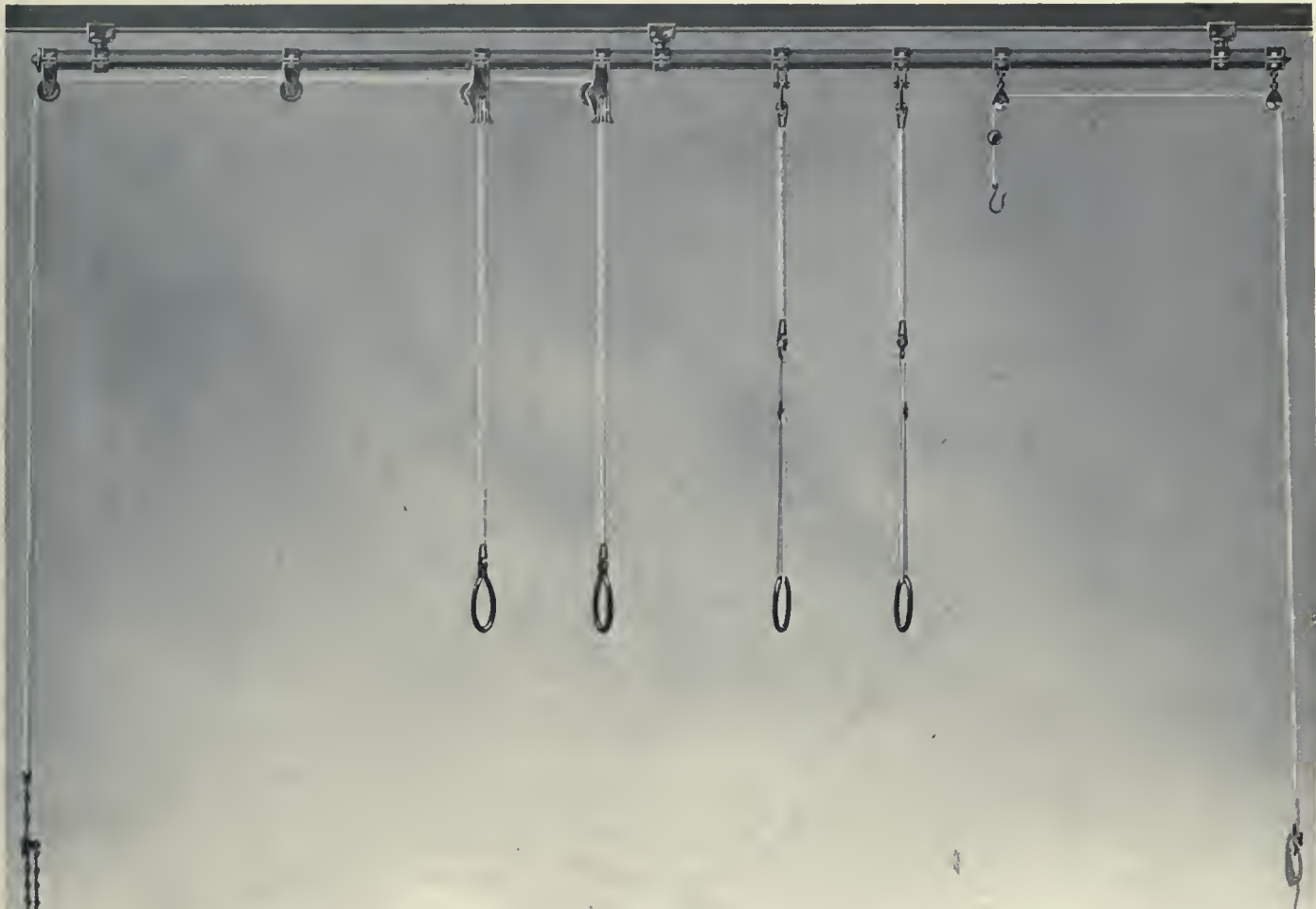
No. 700-1 STANDARD RING, without rope, each, **\$3.00**



INCLINED PLANK

Indispensable for "starting" on Traveling Rings. It is made of oak thoroughly braced and covered with linoleum on the top side to prevent slipping. It should be set with the lower end under the first ring, the inclined surface approximating the sweep of the ring.

No. 709 INCLINED PLANK, **\$10.00**



No. 725

No. 720

No. 729

FLYING RINGS

On the pipe clamped to an iron beam, shown above, are placed a pair of Adjustable Flying Rings (No. 725), a pair of Plain Flying Rings (No. 720) and a Hoisting Fixture; all as they would be erected in a Gymnasium.

"STANDARD" FLYING RINGS

Our seven inch "Standard" Rings (No. 720--2), are connected to the ropes by strong webbing adjusting straps, provided with detachable buckles. At the top our Rocking Joint connects the rope to the pipe clamp, making a joint that will not wear or squeak.

No. 720 FLYING RINGS, adjustable $2\frac{3}{4}$ feet (pipe beam not included), **\$14.00**

ADJUSTABLE FLYING RINGS

The rings may be lowered near to the floor, and used for a swing, or hoisted up entirely out of the way. The Pivot Blocks in which the rope swings are bell mouthed, and each has three pulleys to guide the rope and prevent chafing.

No. 725 ADJUSTABLE FLYING RINGS pipe beam not included), **\$25.00**

"STANDARD" RINGS.

Steel Rings, leather covered. Inside measurements given. Prices are for rings without ropes.

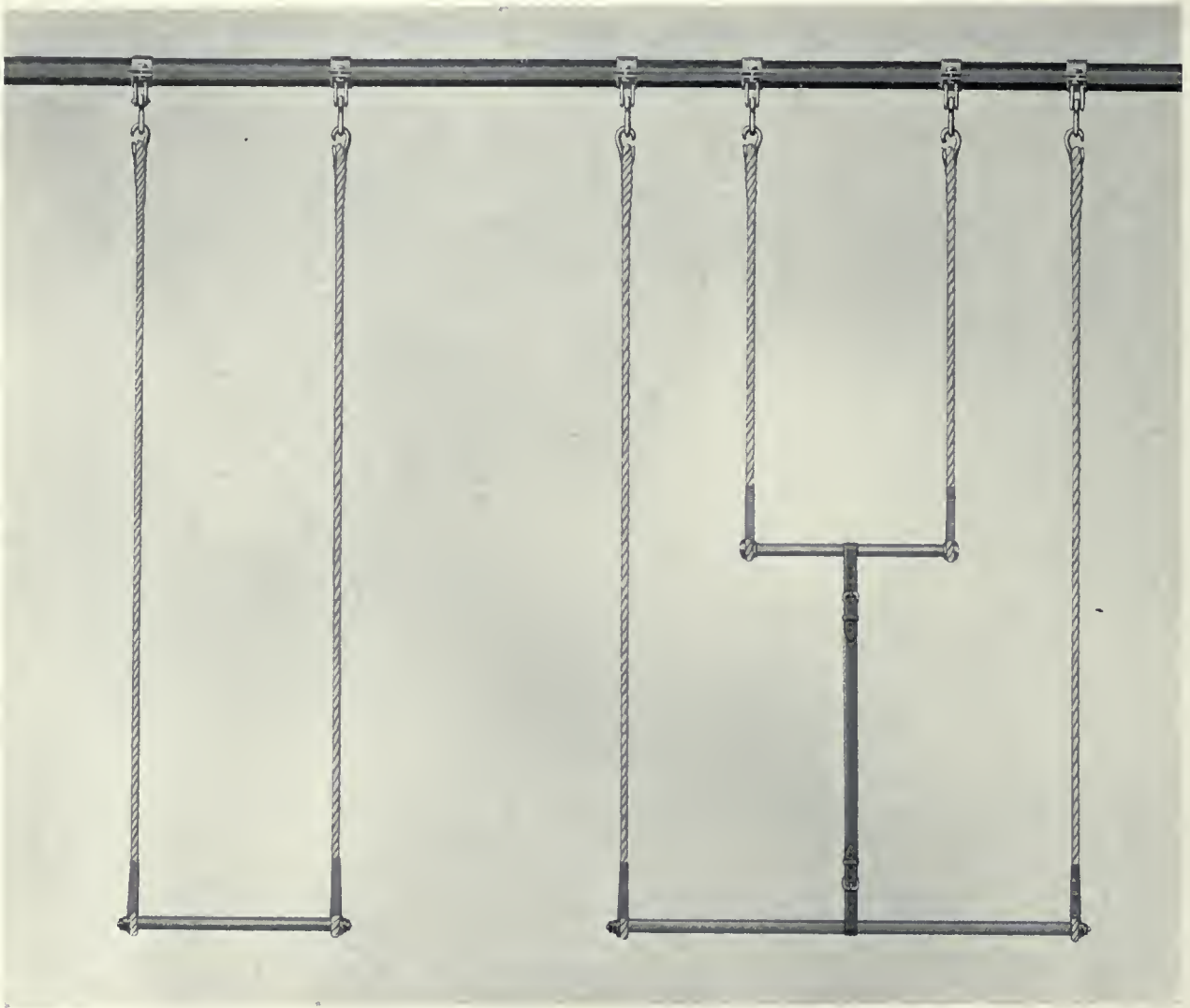


No. 720-3

No. 720-8

No. 720-12

No. 720- 2	7 INCH RING, per pair,	\$8.00
No. 720- 3	10 INCH RING, per pair,	10.00
No. 720- 7	8 INCH RING, with eye, per pair,	8.00
No. 720- 8	10 INCH RING, with eye, per pair,	10.00
No. 720-11	8 INCH RING, with strap eye, per pair,	8.00
No. 720-12	10 INCH RING, with strap eye, per pair,	10.00



TRAPEZE

The above Trapeze bars have all rope connections spliced, and at the top have our "Standard" Rocking Joint as illustrated below. They are shown attached to a pipe beam but any other attachment will be provided at the same price. The Pipe Beams are not included in the following prices.

No. 751 SINGLE TRAPEZE, with steel bar, ropes, etc., complete, **\$6.50**

No. 745 DOUBLE TRAPEZE, with steel lower and hickory upper bar, ropes, etc., complete, **25.00**



"STANDARD" ROCKING JOINT

PATENTED June 27, 1905.

This unique joint was designed for out-door use, but it so perfectly fulfills its purpose of preventing wear and noise, that we shall use it on all swinging apparatus indoor and out. The Clamp or hanger shown is for pipe, but we have hangers for wood or iron beams.

In operation the broad top of the link rocks on the hardened steel roller, held by the bolt passing through the lower ends of the bracket, thus avoiding the wear that always takes place when a common eye or hook swings in an eye bolt.

No. 718-1 ROCKING JOINT, straight, for $2\frac{1}{2}$ inch pipe, each, **\$2.50**

No. 718-2 ROCKING JOINT, cross, for $2\frac{1}{2}$ inch pipe, each, **2.50**

No. 718-3 ROCKING JOINT, straight, for 3 inch pipe, each, **2.50**

No. 718-4 ROCKING JOINT, cross, for 3 inch pipe, each, **2.50**

The "Straight" Joint is shown in the illustration. "Cross" Joints swing across the pipe as shown in the trapeze.

No. 719-1 ROCKING JOINT, for wood beams, each, **\$2.50**

FLYING RING ATTACHMENTS

These Attachments are very strongly made and easy to change.



No. 725-1 TRAPEZE ATTACHMENT for No. 725 flying rings,
hickory bar, \$2.50
No. 720-17 TRAPEZE ATTACHMENT for No. 720 flying rings,
hickory bar, 2.50



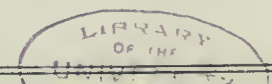
No. 725-2 SWING ATTACHMENT for No. 725 flying rings, oak seat, \$2.50

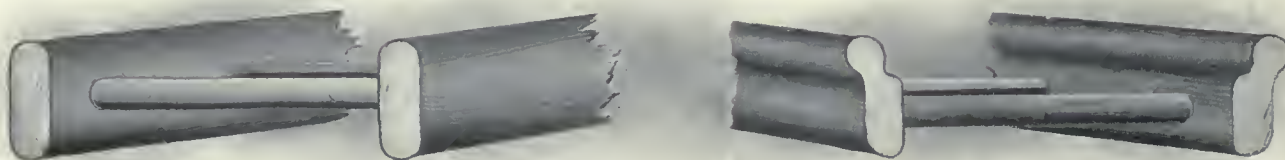
GIANT STRIDE

OR MERRY-GO-ROUND

Our illustration shows the Pivot and one Rope Ladder Handle. As this Pivot is usually placed where it is difficult of access for oiling, etc., it is liable, as usually constructed, to wear out and fall without warning. The "Standard" Pivot is made with steel ball bearings. This runs easily and without noise; requires no oil, and will wear the longest of any known form.

No 730 GIANT STRIDE, with 6 Rope Ladder Handles, \$40.00





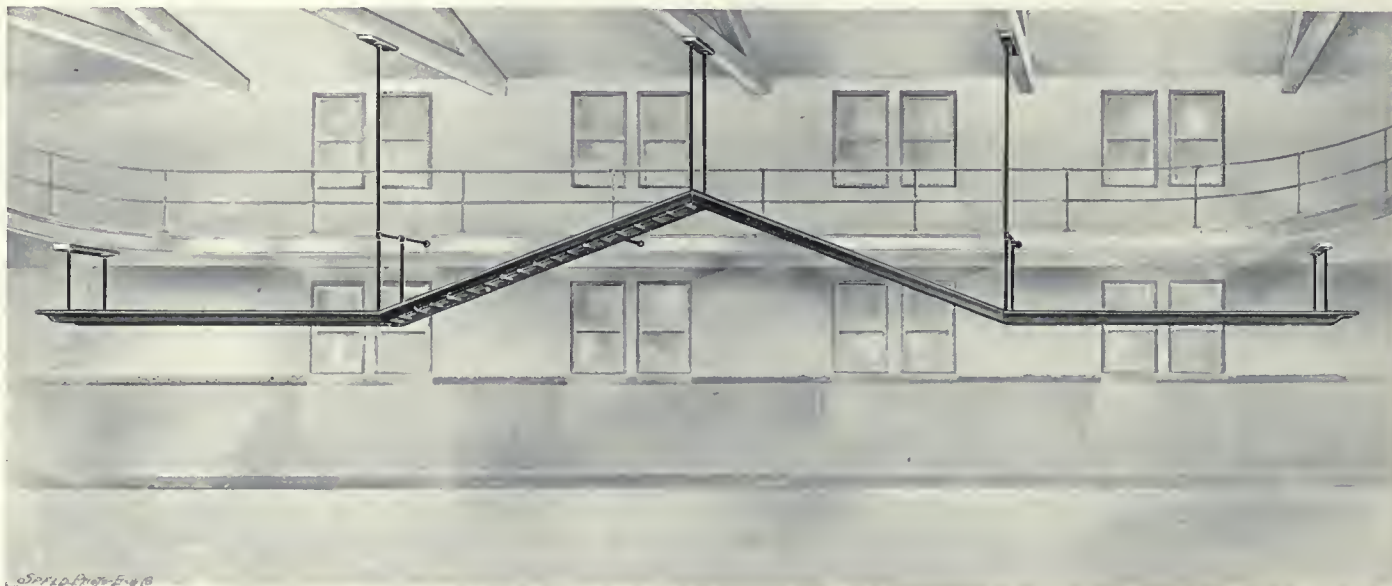
LADDERS

REGULAR SIDE

The proportions of this form of ladder side have been carefully chosen to afford the greatest strength consistent with a comfortable grip.

"STANDARD" SIDE

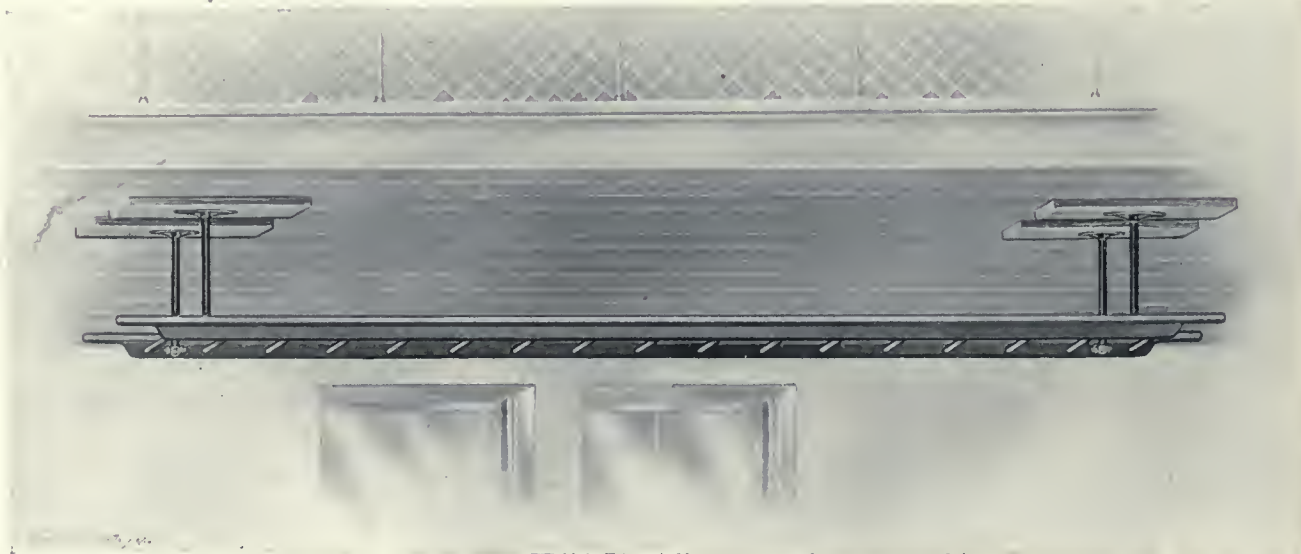
This form of side makes a strong stiff ladder, easily grasped by the fingers, and keeping the wrist from rubbing on the lower edge.



HORIZONTAL AND PEAK LADDER

This form combines a horizontal with an inclined ladder and being placed in front of the gallery occupies space not generally required for other purposes. It does not occupy floor space and is not in the way of class exercises. It can generally be nearly as long as the room, the ends being secured under the ends of the gallery. Sides are "Standard" form.

No. 801 HORIZONTAL AND PEAK LADDER, 4 sections, 52 feet, complete, with all hangers, **\$100.00**

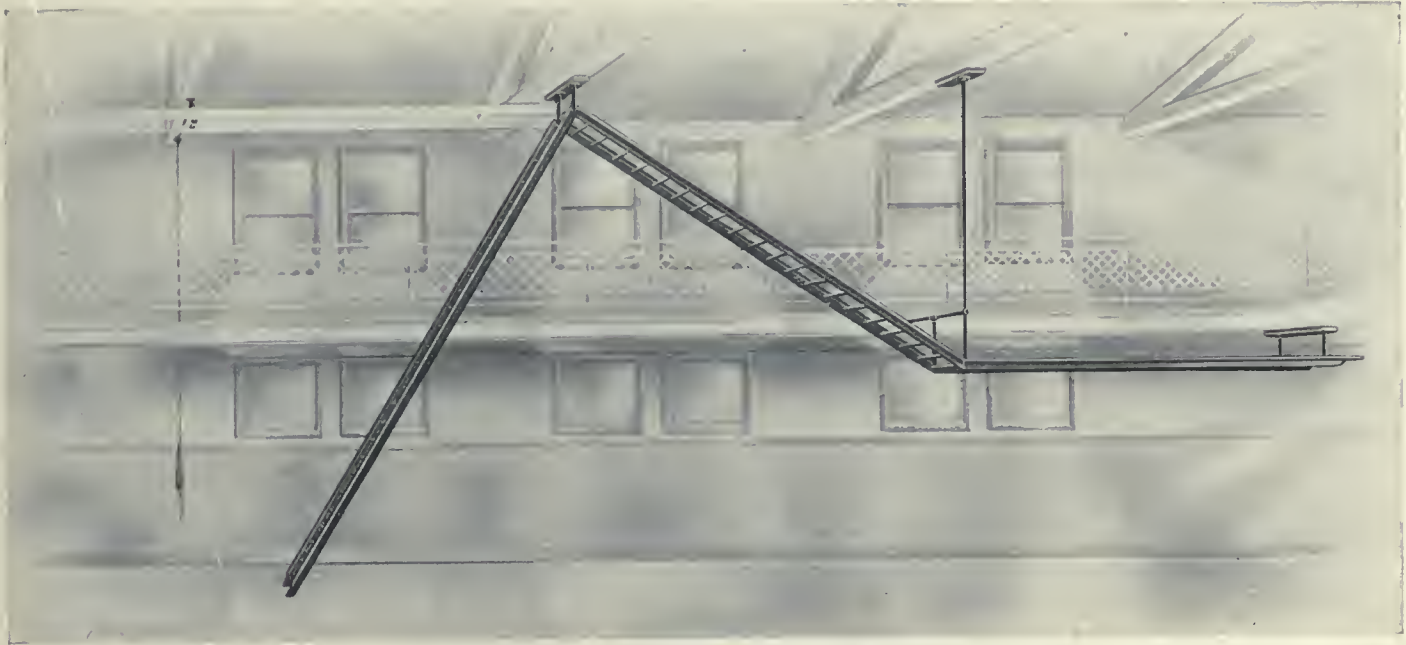


HORIZONTAL LADDER

This is about the only form that can be used under galleries or low ceilings. It can be suspended in any desired location by means of proper brackets, hangers, etc.

No. 803 HORIZONTAL LADDER, "Standard" sides, 16 feet, with hangers,

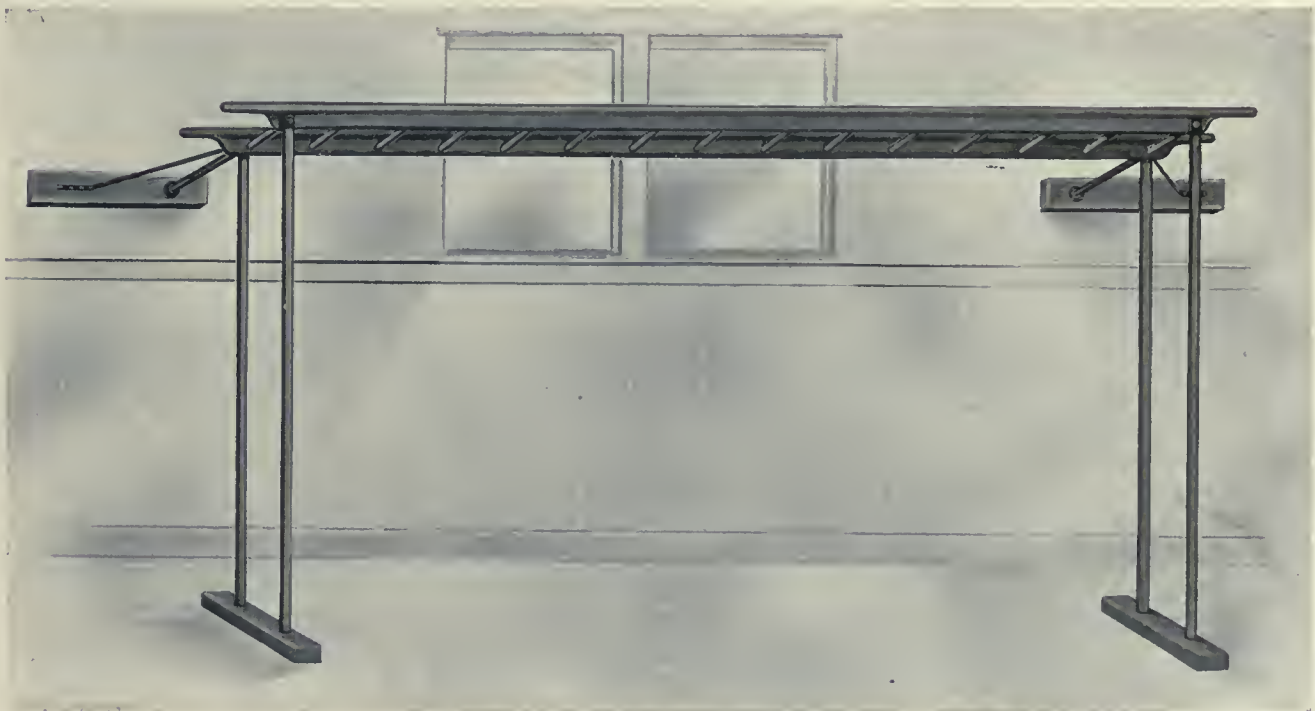
\$36.00



INCLINED AND HORIZONTAL LADDER

This style of ladder possesses many advantages. The upper sides of the long inclined section can be used for balancing; the under side for hand over hand climbing, and the entire section hoisted out of the way when not needed, as is shown in light outline. The uses of the fixed sections are well known.

No. 802 INCLINED AND HORIZONTAL LADDER, with hangers, **\$125.00**



LADDER AND CHEST BARS

A desirable combination for lofty rooms, where over head support is difficult. The ladder has our Standard sides and can be used for considerable of the work usually done on over head parallels.

No. 803-4 LADDER AND CHEST BARS, 16 foot ladder, **\$50.00**

We illustrate herewith a few of the most popular styles of ladders. We have a great variety of hangers, brackets, hinges, etc., adapted for varying conditions, and will be pleased to submit sketches for any desired situation.

All ladders will be eighteen inches inside width, with rungs twelve inches apart when horizontal, and ten inches when inclined, unless otherwise ordered.



“STANDARD” ADJUSTABLE LADDER

This is the most desirable ladder for general use. It can be used by both sexes of all ages, and when not in use folds up close to the wall. It consists of a vertical ladder, sixteen feet long, secured to the wall, gallery, or other means of support; an adjustable section, made of spruce for lightness, fifteen feet long; and a short foot ladder, seven feet high, to support one end of the adjustable section. The adjustable section has leather covered hooks at both ends. One end can be rested on any of the rounds of the vertical ladder at any height. The other end may rest on the floor, forming an inclined ladder for balance climbing, etc., or it may be placed on any of the rounds of the short foot ladder.

No. 813 ADJUSTABLE LADDER, including foot ladder, **\$50.00**

No. 814 ADJUSTABLE LADDER, no foot ladder, **36.00**

The outer end of the adjustable section may be supported on a vaulting bar.

“STANDARD” AUTOMATIC LADDER

This Ladder is designed to embrace all the advantages of the “Standard” Adjustable Ladder, with somewhat greater ease of handling. The wall end of the adjustable section is counter balanced by weights that run on the sides of the wall ladder, and has an automatic latch that secures it at any height. Sizes are the same as No. 813.

No. 815 AUTOMATIC LADDER, with foot ladder, **\$76.00**

No. 816 AUTOMATIC LADDER, no foot ladder, **60.00**

See Page 93A



BALANCE SWING

Also called See-Saw and Teeter Ladder. It is one of the most valuable and enjoyable pieces of apparatus for ladies and children who need to be tempted by the pleasure of the exercises to use any overhead apparatus.

The "Standard" Balance Swing has a pipe central part on which the ladder is adjustable for height and around which it may rotate when the pin is below the collar on the post.

No. 826 BALANCE SWING, \$36.00

LADDERS

These ladders, made the same as shown opposite, may be adopted for use on vaulting bars.

No. 825-1 LADDER, 10 feet long, \$12.00

ROMAN LADDERS

These Ladders are used entirely for pyramids, grouping, etc. They are light and strong, and smaller at the top than at the base. The top handle is large and easy to grasp from any direction.

The "Standard" Roman Ladders have an oak base. The ladders are of selected spruce, giving the greatest strength for the weight. The handles are malleable iron, and the feet have points that fit holes in the base so the ladders cannot slip.

No. 827 ROMAN LADDERS AND BASE, \$40.00





STANDARD PARALLEL BAR

In this Parallel Bar we have condensed the experience of fifteen years. It is instantly adjustable, for both height and width, without tools. The adjustments are easily made, are safe, and cannot get out of order. The Vertical Adjustment is our improved pin latch, shown on the next page, and the Horizontal Adjustment a clamp hand wheel, as shown at the right.

"Standard" Heavy Swivel Casters, with roll bearing rollers, as shown at the left, arranged to be thrown into action by a latch are provided, by which the bars are easily moved, and leather feet prevent scratching of the floor. The bars are secured to the posts by improved connections. They may be set level or inclined.

All parts are iron except the bars, which are selected hickory. They are adjustable from three and one-half to five feet in height, and from fifteen to twenty inches between bars when down and twelve to seventeen inches when up.



No. 841 "STANDARD" PARALLEL BAR,	
8 feet,	\$75.00
No. 842 "STANDARD" PARALLEL BAR,	
10 feet,	80.00
No. 843 "STANDARD" PARALLEL BAR,	
12 feet,	85.00

No care or expense has been spared to make this bar mechanically perfect. It is a high grade gymnasium machine, in which all joints are strongly made and carefully fitted.





SCHOOL PARALLEL BAR

This bar is a modification of our "Standard" Parallel Bar, to provide a lighter and less expensive piece of apparatus. The base is of oak, and has rollers that when thrown into action enable the bar to be easily moved. Quick adjustment, for height only, is provided. The bars may be set at any desired width. Light, firm, easy to move or adjust—this is the ideal School Parallel Bar.

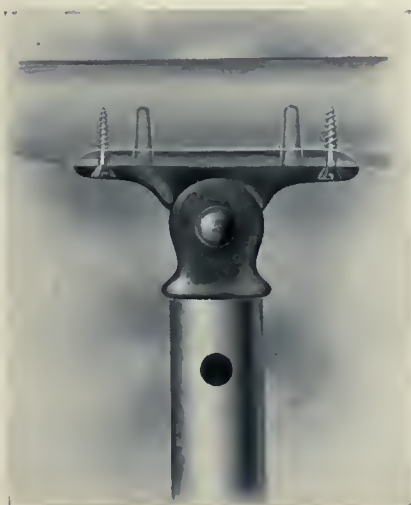
No. 846 PARALLEL BAR, 8 feet,	\$50.00
No. 847 PARALLEL BAR, 10 feet,	55.00

BAR DETAILS

The Post Joint and Latch here illustrated are used on our "Standard" and School Parallel Bars.

The Post Joint holds the bar securely to the post, and permits the bar to bend. The bar is held on the top part of the joint by the two screws shown. The two pins enter the under side of the bar, hold it straight and prevent undue strain coming on the screws. This joint does not weaken the bar, will not wear into it, and does not require holes on the top of the bar.

The Latch shown on the right side holds the bar positively and securely at different heights. Raising the lever draws out the pin and admits of the bar being raised or lowered. When the lever is pressed down the pin will snap into one of the holes in the top sections of the bar leg.





FIXED PARALLEL BAR

This Parallel Bar has been designed to meet the demand for a first-class non-adjustable bar. The end bases are iron, very heavy and strong, with the ends tapered and flattened out so as to let a mat lie smoothly over them; they are oval between the uprights. The legs or uprights are of selected ash, as are the side bases. There are three leather feet under each end base that enable the bar to stand firmly and prevent scratching the floor. All corners are rounded, and there are no projecting bolts, nuts or sharp points. For gymnasium use, where a bar does not have to be adjusted or moved often, this bar will fill all requirements.

No. 831 FIXED PARALLEL BAR, 8 feet,	\$35.00
No. 832 FIXED PARALLEL BAR, 10 feet,	37.50
No. 833 FIXED PARALLEL BAR, 12 feet,	40.00



VAULTING PARALLEL BAR

This bar, sometimes called the Hand Spring Bar, is used for hand springs, shoulder rolls, hand stands, vaulting, etc. Much of the work done on the parallel bars can be done with greater safety on these.

No. 865 VAULTING PARALLEL BAR, 30 inches long, 24 inches high,	\$12.00
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REGULAR PARALLEL BAR

This bar is the result of much study and experiment to produce a good bar at a low price. The bars are of selected hickory, made the same as our "Standard" Bars; the legs are of hard wood. The cast brackets which secure them to the base are strong and of a neat design. All corners of both wood and iron are carefully rounded.

These bars are all made five feet high, and with rails eighteen inches apart, centre to centre, unless otherwise ordered. In ordinary exercises, this bar does not need to be secured to the floor.

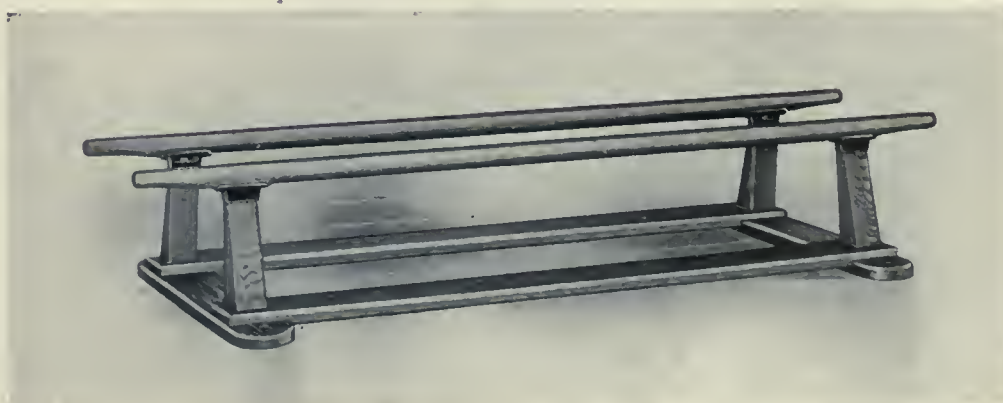
No. 851 REGULAR PARALLEL BAR, 8 feet, **\$22.50**

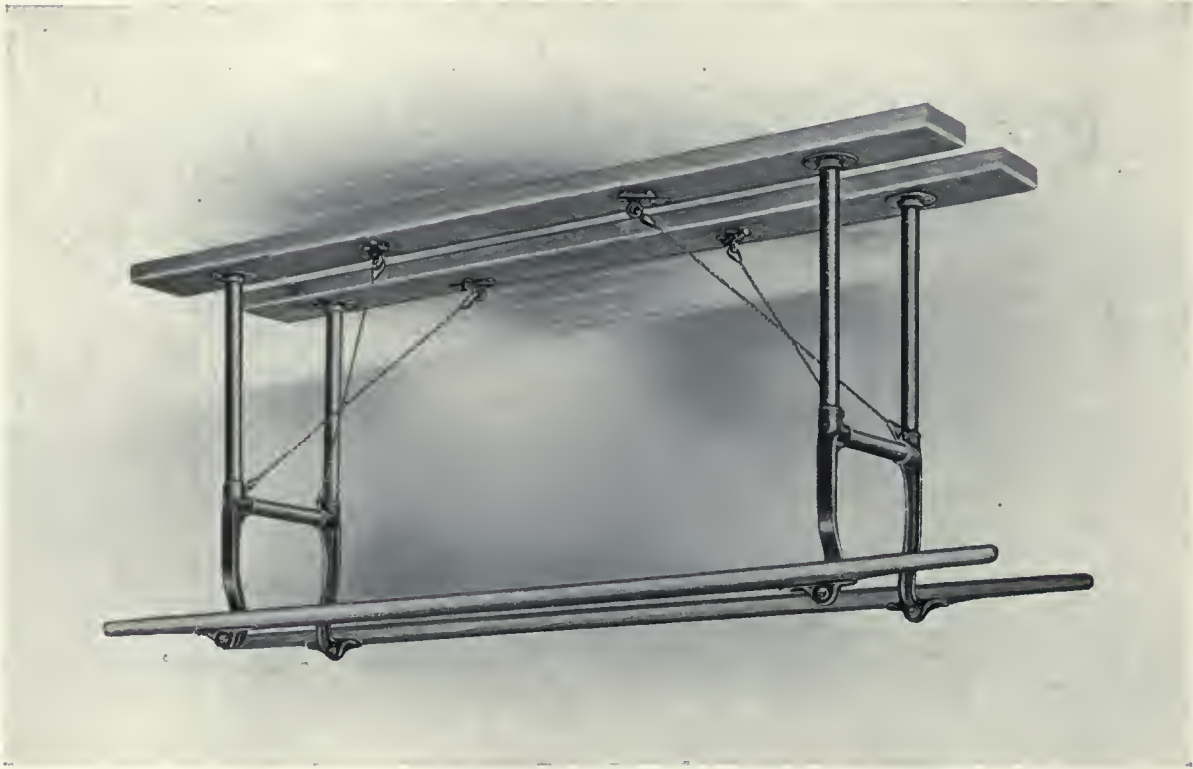
No. 852 REGULAR PARALLEL BAR, 10 feet, **\$25.00**

LOW PARALLEL BARS

A useful and safe piece of apparatus for learning many parallel bar feats. Made strong and substantial with rounded corners.

No. 864 LOW PARALLEL
BAR, 7 feet long, 15
inches high, **\$16.00**





SUSPENDED PARALLEL BAR

This adaptation of the Parallel Bar is deservedly popular. It is easiest placed under a gallery. If the support is over ten feet high, guys to hold the hangers firm are necessary. The bar may be secured in front of a gallery or in any desired position, by special hangers. The hangers shown above are made of malleable iron and wrought iron pipe, and are designed to give as much head and shoulder

room as possible while leaving the top side of the bars clear for hand walks, jumps, etc. The joints are the same as shown for School and Standard Parallels.

No. 871 SUSPENDED PARALLEL BAR, 8 feet, **\$30.00**

No. 872 SUSPENDED PARALLEL BAR, 10 feet, **32.50**

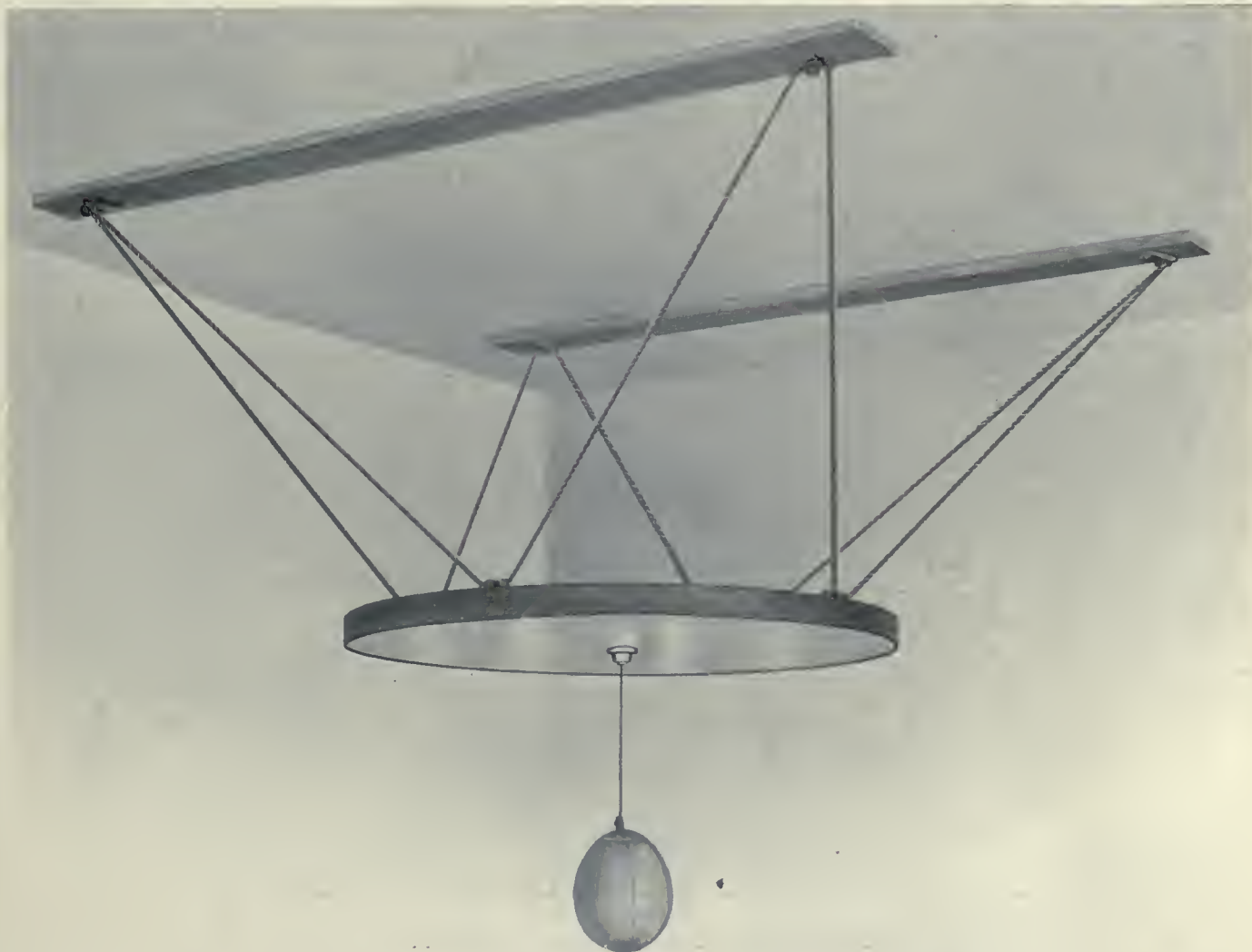
No. 873 SUSPENDED PARALLEL BAR, 12 feet, **35.00**

INSTRUCTORS' PLATFORM

This Platform is seven feet long and six wide. It is made of North Carolina pine, natural finish and is arranged to fold up against the wall, the outer feet folding down as shown in the phantom of the platform turned up.

No. 896 INSTRUCTORS' PLATFORM, 6 x 7 feet, **\$40.00**





STRIKING BAG DRUM

The heavy, rope suspended, Striking Bag Drum has, after years of use, proven to be the best adapted for gymnasium practice. The weight of the drum keeps the ropes taut and their arrangement in triangles prevents the swaying of the drum. The vibrations of the drum, which are small on account of its weight, are not transmitted to the ceiling or other means of support.

The drum is strongly made of hard pine with an oak moulding bent around the edges. Ceiling boards, ropes and special clips, for attaching, are all provided.

No. 895 ROPE SUSPENDED DRUM, 4½ feet in diameter,
with all fixtures, except bag, **\$20.00**

SOLID DRUM

This drum is the same size and construction as above, except that it may be supported from overhead by pipe braces (No. 893), or from a wall by brackets (894).

No. 893 DRUM, with pipe brace, complete except bag, **\$20.00**

No. 894 DRUM, with brackets, complete except bag, **20.00**

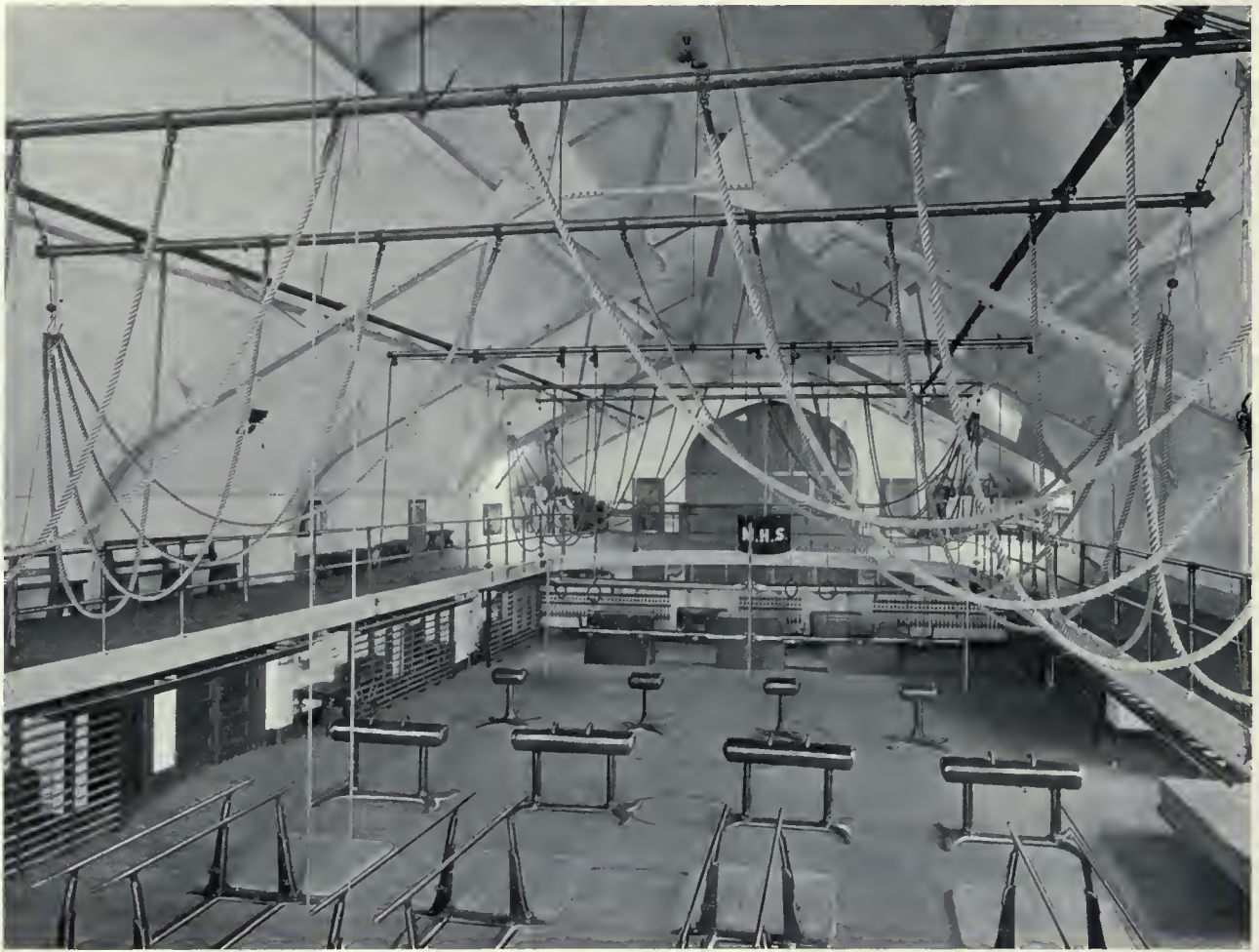
STRIKING BAG

A bag for severe general use, made of selected Cordovan, with welted seams, double stitched on each side. First quality rubber bladder.

No. 97 X STRIKING BAG, each, **\$5.00**

No. 7 AS RUBBER BLADDER, each, **1.50**





MORRIS HIGH SCHOOL GYMNASIUM, NEW YORK CITY

GYMNASIUM EQUIPMENT

The proper equipment of a Gymnasium includes the installing of the apparatus in a neat and substantial manner. As the buildings are often constructed without any provision for the erection of the Equipment it is necessary to put up pipe beams or other means on which to secure and adjust such apparatus as ropes, poles, etc.

We have designed for this purpose special fittings or clamps for attaching pipe beams to either Iron or Wood roof trusses, etc., and for suspending apparatus from pipe beams, iron beams, or wood construction. These Clamps or fastenings are of malleable and wrought iron, neat in appearance, easy to adjust, and very reliable.

The above illustration shows an application of these fittings. Longitudinal pipes are secured to the roof trusses and to these are fastened cross pipes to which the apparatus is attached. Means are provided for hoisting ropes, rings, etc., out of the way. The Mats are handled on a large truck. All heavy floor apparatus is provided with casters.

The outfit is a typical High School Equipment, provision being made for class floor work on heavy apparatus, four sets of Bucks, Horses, Parallel Bars, Vaulting Bars and Swedish Boxes being provided. At each end of the room are Booms having two bars arranged to raise and lower or adjust separately. Stall Bars are placed at the sides and Clubs and Bells on the end walls.

The Morris High School has two Gymnasiums, that for the boys being shown above. The school has 2,000 pupils.

We furnish to Architects, Directors, Building Committees, etc., plans showing the arrangement of apparatus and estimates of complete equipments, erected in place ready for use.



VAULTING BOX

The Vaulting Box is made of light, strong wood, and has four lifts for the adjustment of height. Each of these lifts has long, hard wood tenons to hold the lift above, iron corner plates, and is braced inside. The top lift or box is padded on the top with hair felt and covered with leather specially prepared to prevent slipping. The top lift is twenty-five inches high, and each under lift adds eight inches to the height, making the total height forty-nine inches.

No. 900 VAULTING Box, with three underlifts,

\$44.00

SWEDISH BOOMS



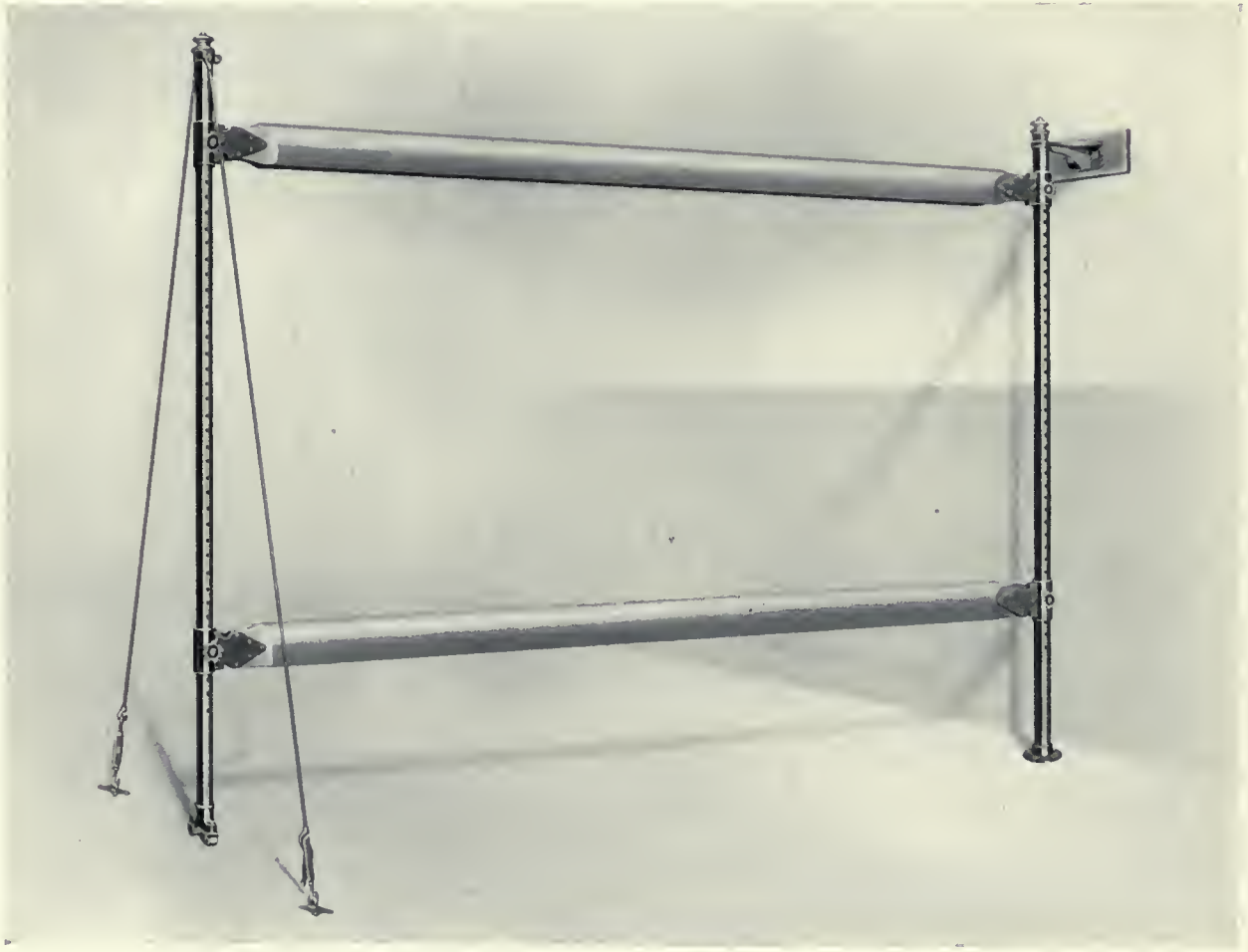
On the following pages will be found the latest improvements in this valuable piece of apparatus.

By an improved cap, illustrated on a succeeding page, we are enabled to make the posts of steel tube, which is strong, compact and not liable to twist and bind the bar.

The Caster and Locking Bolt illustrated on this page, having pivoted "Standard" roll bearing rollers same as are used on parallel bars, will swing easily on an arc without dragging.

The central Locking Bolt, shown in phantom, locks or unlocks the bottom of the post by a touch of the toe.

Either the plain or balanced Swing Boom can be swung under a quite low gallery and for ease of handling have no equals.



SWINGING BOOM

OR HORIZONTAL BAR

The Boom shown above has one post bracketed from the wall, forming a pivot upon which the boom may be swung back to the wall like a gate. The other post has casters, that permit easy movement, and is secured to the floor by a central locking bolt. It is also braced by guys, one of which having an instantaneous turnbuckle permits of a quick detachment from the floor.

The Bar and Heaving Board are our "Standard" Patterns, twelve feet long, and provided with our "Standard" Boom Caps that permit the bars to be taken out, reversed, or changed about from upper to lower. This Cap holds the bar up by a pin and is clamped tight by a hand screw.

No. 910A SWINGING BOOM, complete,

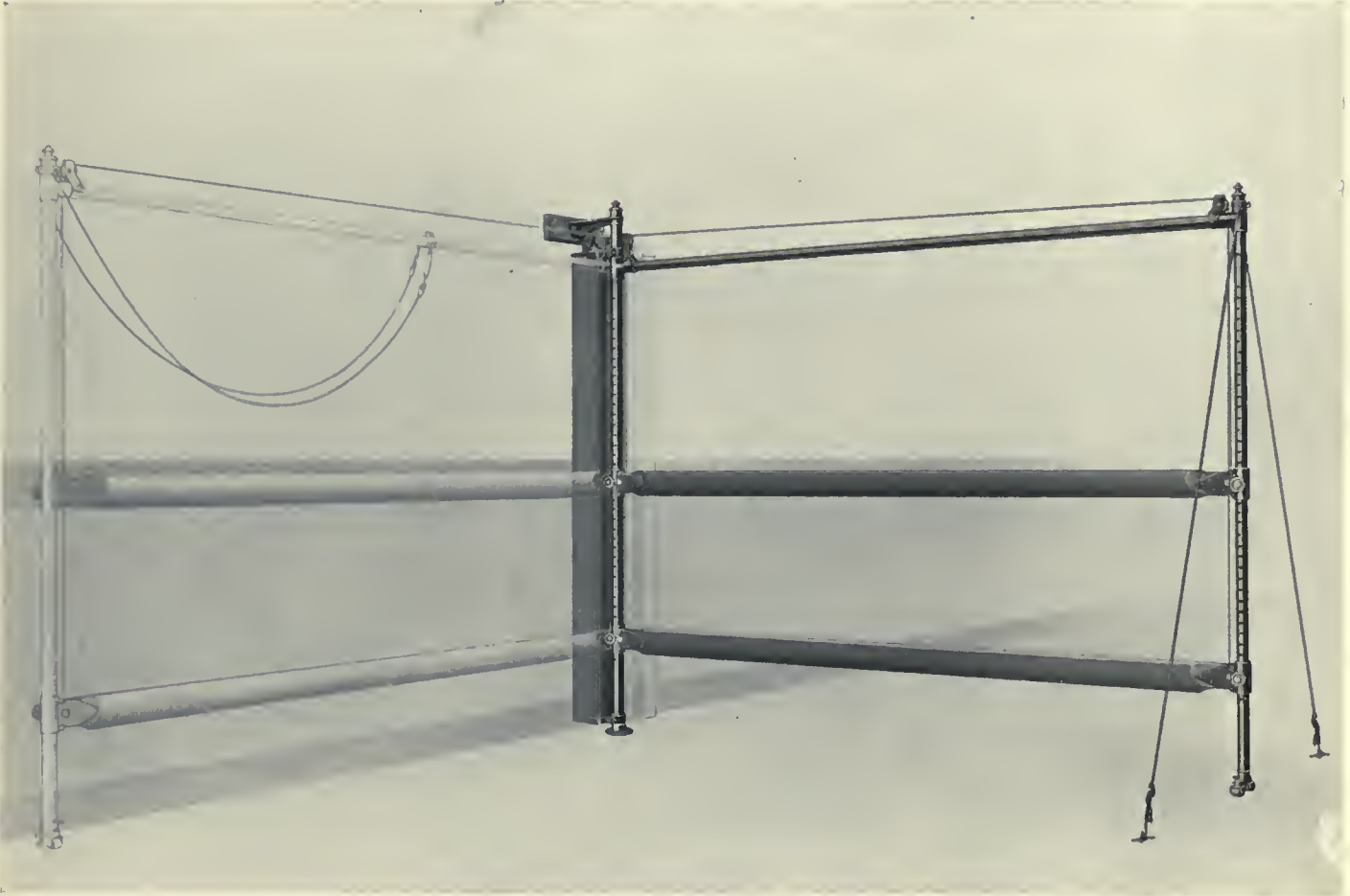
\$80.00



"STANDARD" SWEDISH BARS

The "Standard" Swedish Bar and Heaving Board are made from carefully selected white pine to approved forms that have been drawn with great care to secure proper strength and desirable edges to work on.





BALANCED SWINGING BOOM

In this style Boom the bars are balanced so they are easily raised and lowered. The bars have our "Standard" boom caps that permit changing or reversing of the bars.

The pivot post is bracketed to the wall, and the outer post is secured at the bottom by a locking bolt, and at the top by guys. An instantaneous turnbuckle provides for quick and easy adjustment of the guys.

The post and connecting brace across the top being iron, very compact in design, enables this boom to be swung under a low ceiling or gallery, and avoids all trouble formerly experienced with wooden posts due to shrinking or swelling.

No. 912A BALANCED SWINGING BOOM,

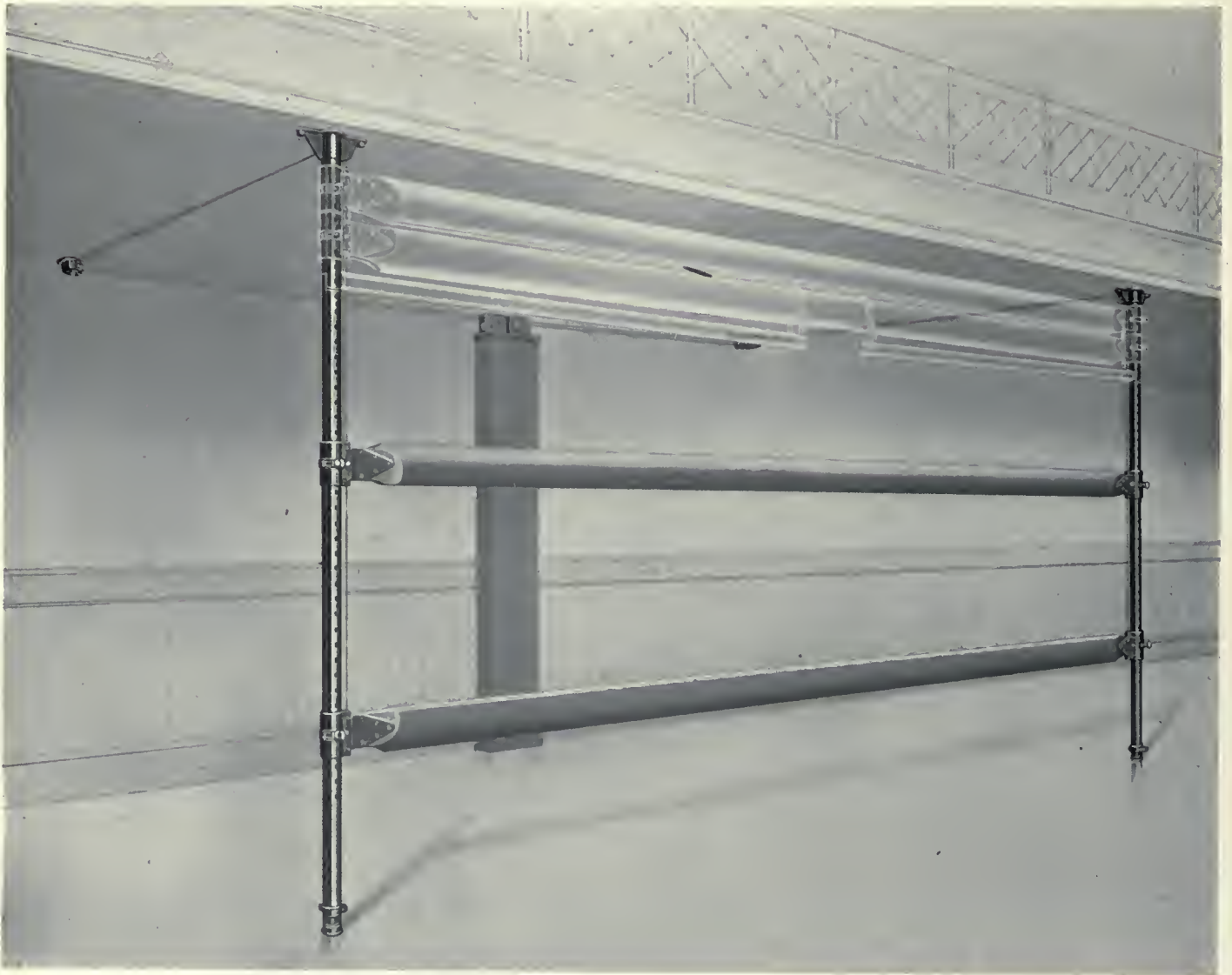
\$160.00



"STANDARD" BOOM CAP

It is always desirable to be able to turn a Swedish Bar over, and to remove one bar or change the bars from top to bottom, or vice versa. All these features are secured by this cap, and in addition means are provided for clamping the bar in the cap, and the sleeve to the post.

The hand wheel at the left tightens the sleeve on the post, and the knob in its centre operates the pin on which the bar rests. The knob at the right tightens the caps on the ends of the bar.



BALANCED BOOM

This Boom may be advantageously placed under a gallery. The bars are balanced by weights in the box on the wall, which are connected to the booms by the wire ropes shown under the gallery.

When not in use the bars may be pushed up and the posts swung under them as shown in phantom lines, thus getting them well out of the way. The Boom Caps are our latest improved "Standard" as shown on the preceding page, and the Locking Bolt same as used for Vaulting Bars described on page 37.



NO. 913A BALANCED BOOM,

\$175.00

BOOM SADDLE

This desirable attachment for the Boom is made of white pine, very light, and is provided with a latch and hand screw that clamps it firmly to the bar.

Three saddles are generally used on a twelve foot or four on a sixteen foot bar.

NO. 915 "STANDARD" BOOM SADDLE,

\$15.00



STALL BARS

Stall Bars (or Rib Stools) may be placed along a gymnasium wall, as many in a line as the space will permit. Each stall or section occupies three feet.

The "Standard" Stall bars are made of North Carolina pine with polished maple bars, round in section.

No. 920 STALL BARS, per
stall in sections of two
or more, **\$8.00**

STALL BAR BENCHES

These benches are made of white wood, strongly braced and have rounded corners. The feet are as wide as the top and incline outward, even with the ends, making the bench stable in any position.

No. 927 STALL BAR BENCH.

\$3.00



PADDED BENCHES

This is the No. 927 Bench, padded with one inch of hair felt, and covered with brown duck.

No. 928 STALL BAR BENCH, padded, **\$4.00**

The benches may be put up in the open space of the stall bars when not in use (see cut of horizontal ladder).



HORIZONTAL LADDER

The above illustration is made from a photograph of a ladder installed in the Teachers' College, New York City.

It shows a ladder suspended by three rope tackles from a pipe beam, which is secured to the roof trusses. The ropes pass down back of the gallery to the wall beneath. The ladder is also stayed at the bottom by straps.

The Horizontal Ladder has a stronger frame than the vertical ladder and has a central side support. It can also be used as a vertical ladder if necessary.

No. 932 "STANDARD" HORIZONTAL SWEDISH LADDER,

\$40.00

VERTICAL LADDER

This ladder being made specially for Vertical Work has the sides rounded and reduced to nearly the diameter of the rounds, thus adapting them for serpentine work.

The sides are of Oregon pine and the rounds of maple. Special pains are taken to round all corners and smoothly finish the entire ladder.

When made nine spaces high as shown above, the supporting beam or pipe should be eighteen feet from the floor. Shorter ladders made to order.

No. 931 "STANDARD" VERTICAL SWEDISH
LADDER,

\$40.00

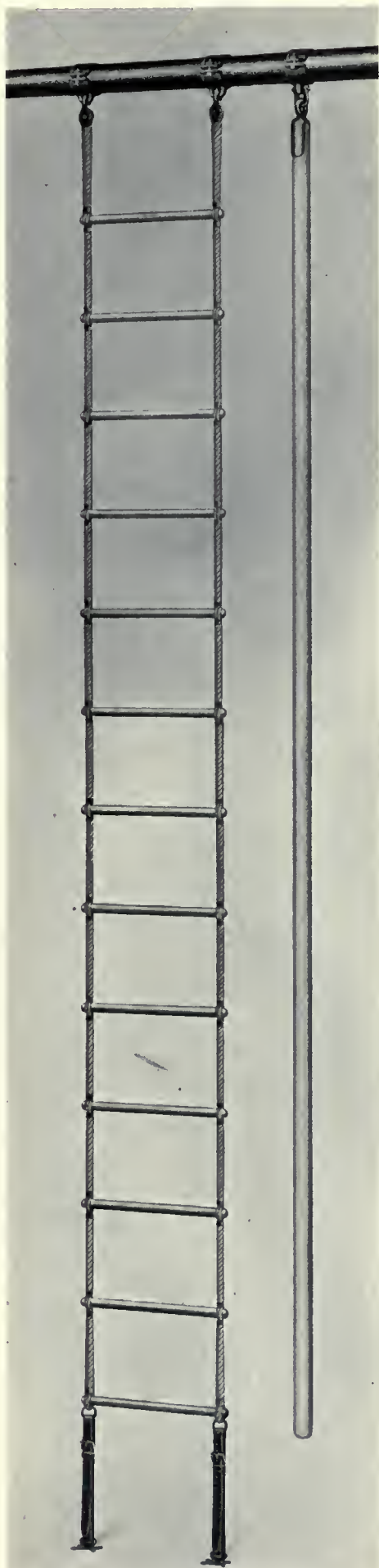
APPARATUS

FOR MEDICAL GYMNASTICS

We make such apparatus as Plinths, Massage Tables, Booms, Rib-Stools, etc., for Medical and Orthopedic Gymnastics, including the apparatus advised by Dr. Anders Wide in his handbook. Illustrations and prices are given in our Catalogue of Medical and Anthropometrie Apparatus which will be sent on application.



GYMNASIUM PLINTH.



SWEDISH CLIMBING APPARATUS

The Rope Ladder and Pole are especially Swedish. Other climbing apparatus is the same as previously described.

ROPE LADDER

This ladder has maple rounds with their ends worked into the side ropes. Each side rope is secured separately at both top and bottom; the bottom fastening being a strap that can be tightened.

No. 940 SWEDISH ROPE LADDER, 18 feet or less, **\$20.00**

CLIMBING POLE

Made of Oregon Pine two and one-half inches in diameter. If desired, the strap shown on page 40 can be attached at the bottom to prevent swinging.

No. 945 SWEDISH CLIMBING POLE, 18 feet or less,
2½ inches diameter, **\$8.00**
SAME WITH FOOT STRAP, **12.00**

CLIMBING ROPE

Our "Standard" Climbing Rope is made with four strands of selected long fibre Manilla. It will wear smooth and is very durable. Italian Hemp ropes will be furnished if desired. Prices on application.

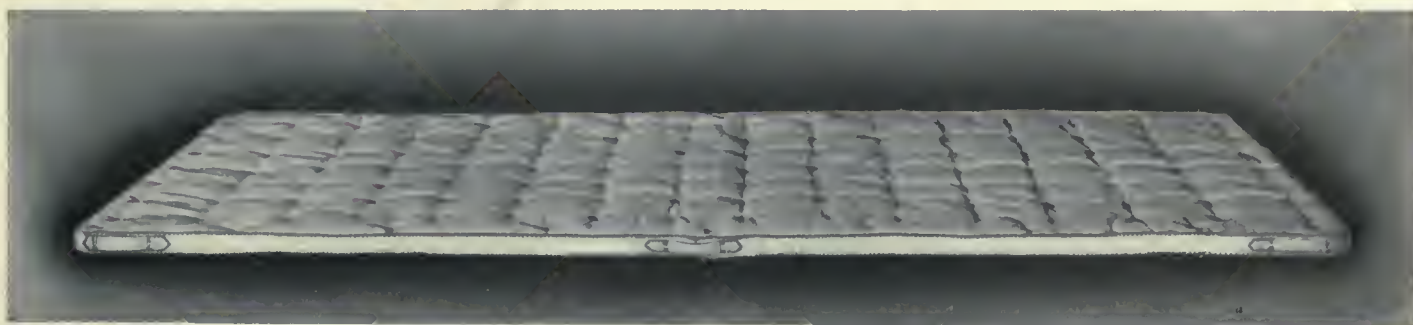
No. 551 CLIMBING ROPE, MANILLA, 18 feet or less,
no knot, **\$6.00**
SAME WITH FOOT STRAP, **10.00**

POSSE INCLINED ROPE

This style of Inclined Rope can be quickly loosened and hoisted out of the way, as is shown on page 40.

No. 554 POSSE INCLINED ROPE, 24 feet or less,
with block and hoisting fixtures, complete, **\$18.00**

GYMNASIUM MATS



The "Standard" Felt Mats are made of two layers of one-inch hair felt, best grade, covered with No. 6 Soft White Duck, with the top side reinforced by burlap. The edges are all built up square and the corners rounded. The handles are made of duck strongly sewed to the reinforced edge of the mat and lying so close that they avoid all possible chance of catching the feet. They are so placed that two mats may be lashed together for tumbling, etc. This mat is hand-sewed with wax thread, closely tufted, and will stand years of hard use.

"Standard" two inch Mats, two inches thick, No. 6 Soft White Duck, hand sewed, etc. Sizes kept in stock as follows:

No. 981 "STANDARD" MATS, 2 inches, 3 x 5 feet, \$9.00	2 INCH "STANDARD" MATS, to order, per square foot,	\$0.60
No. 982 "STANDARD" MATS, 2 inches, 5 x 5 feet, 15.00	3 INCH "STANDARD" MATS, to order, per square foot,	.70
No. 983 "STANDARD" MATS, 2 inches, 5 x 7 feet, 21.00	4 INCH "STANDARD" MATS, to order, per square foot,	.80
No. 984 "STANDARD" MATS, 2 inches, 5 x 10 feet, 30.00		
No. 985 "STANDARD" MATS, 2 inches, 5 x 15 feet, 45.00		
No. 986 "STANDARD" MATS, 2 inches, 5 x 20 feet, 60.00		

PARALLEL BAR MATS

For Parallel Bars, at the sides, two-inch mats three feet wide are used. They are generally one foot shorter than the bars. At the ends a three by five mat may be used.

No. 962 SIDE MAT, 3 x 7, for 8 foot bar,	\$12.60
No. 963 SIDE MAT, 3 x 9, for 10 foot bar,	16.20
No. 964 SIDE MAT, 3 x 11, for 12 foot bar,	19.80

COMBINATION MATS

These are made the same as "Standard" mats, except that they are hinged on one edge, so they may be folded together making of two 5 x 10 x 2 inch mats either a 10 x 10 wrestling mat or a 5 x 10 x 4 inch mat.

No. 969 COMBINATION MAT,	\$65.00
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SLIDING POLE MAT

For sliding poles in corners of gymnasiums. Round, with a hole in the centre, and slit from one side closed by a strap and buckle. See illustration of Sliding Pole.

No. 973 SLIDING POLE MAT, 3-inch felt, No. 6 White Duck,	\$16.00
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WRESTLING MAT

Made in one piece, 16 feet square, 2 inches thick, of No. 6 White Duck, with handles, etc.

No. 975 WRESTLING MAT,	\$150.00
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Our "Standard" two-inch mats can be strapped together at the corners to form wrestling mats.

MAT COVERS

Made to be filled with hay or any cheap material for tumbling mats. They lace up on one side and have a flap that prevents dust working out from the filling.

No. 979 MAT COVER, 5 x 10 feet, 8 inches thick,	\$20.00
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Any other sizes made to order. Prices quoted on application.

JAPANESE HAIR MATS

Mats of this material have proved elastic and durable. They are usually made from six to ten inches thick. We will quote prices on application.

INDIAN CLUBS



"STANDARD" MODEL

This model represents the latest development in clubs, i. e., a low weighted, slow swinging club. They are turned from seasoned maple to carefully designed forms, by machinery that produces exact duplicates, thus securing uniform sizes, weight and balance.

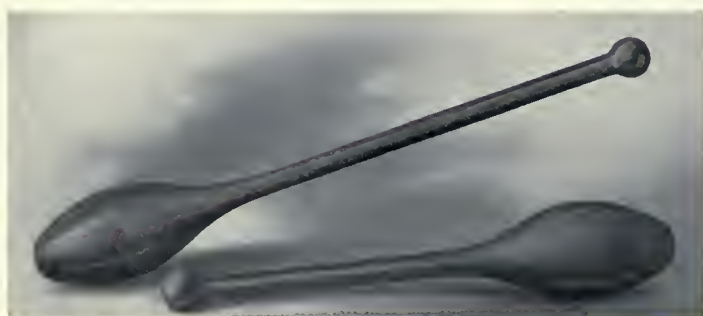
No. 1001	½ POUND CLUBS, selected, per pair,	\$0.45
No. 1002	¾ POUND CLUBS, selected, per pair,	.45
No. 1003	1 POUND CLUBS, selected, per pair,	.50
No. 1005	1½ POUND CLUBS, selected, per pair,	.55
No. 1007	2 POUND CLUBS, selected, per pair,	.60

NOTE:—SELECTED CLUBS are free from knots and cracks. They are hand polished with shellac, the only finish that will not become sticky with use. CULLS, or seconds, are such clubs as will not pass as selected but have no defects that injure them. They are sold at half price.

SCHOOL MODEL

This model has the weight still lower than the "Standard," and is consequently slower. They are used exclusively in the public schools of Greater New York.

No. 1061	½ POUND, selected, per pair,	\$0.60
No. 1062	¾ POUND, selected, per pair,	.60
No. 1064	1 POUND, selected, per pair,	.75



LIVERPOOL MODEL

A club modeled on English lines, sometimes called sceptres. On account of their great length of handle, they are very slow and well adapted for beginners.

No. 1067	1½ POUND, 20 inches long, per pair,	\$1.80
No. 1068	1½ POUND, 25 inches long, per pair,	2.00



No. 1076

No. 1077

No. 1079

No. 1078

No. 1076

EXHIBITION MODEL

These clubs are a good form for fancy swinging, and are well adapted for prizes or presentations.

No. 1076 EXHIBITION MODEL, plain,	\$2.60
No. 1077 EXHIBITION MODEL, ornamented,	6.00
No. 1078 EXHIBITION MODEL, ornamented,	7.00
No. 1079 EXHIBITION MODEL, ornamented,	8.00
All ebonized, (black) finish.	

No. 1077X CUT DESIGNS, with pins,	\$1.00
No. 1078X CUT DESIGNS, with pins,	1.25
No. 1079X CUT DESIGNS, with pins,	1.30
No. 1081-1 NICKELINE and pattern and pins for one pair of clubs,	.50

CHAUTAUQUA MODEL



This is a hollow light club, weight nine to ten ounces, with the weight low, making it swing slowly. All ebonized (black) finish.

The oval base does not catch on clothing, and is a decided novelty in appearance. This club is a favorite for fancy swinging, and may be ornamented same as No. 1076, at the same advance in prices.

No. 1073 FLAT BASE, per pair,	\$2.00
No. 1074 OVAL BASE, per pair,	2.00

ANDERSON MODEL

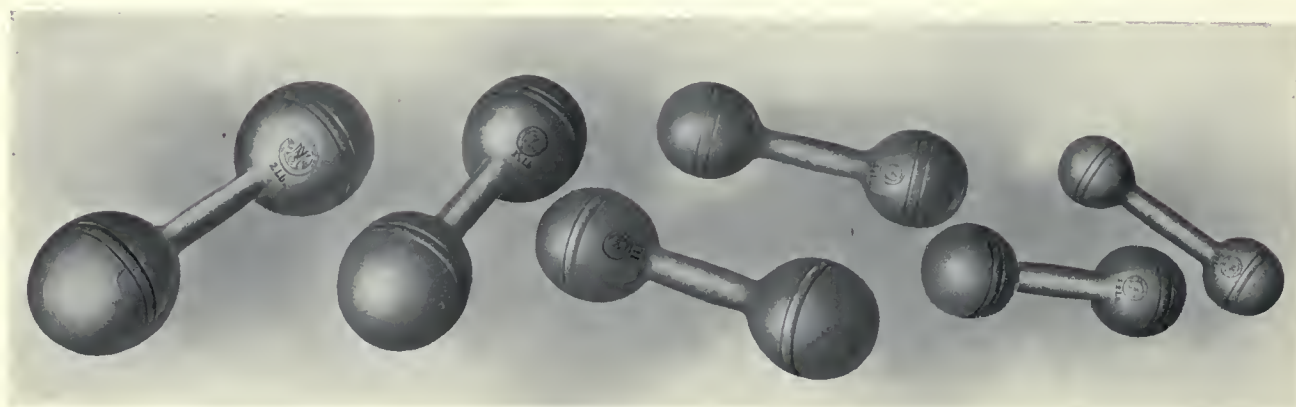
A popular club for class work. Made of white wood to secure bulk and lightness. They are finished in two ways, natural and ebonized. The natural finish is a lathe polish with shellac. The ebonized finish is a dull black, well adapted for ornamenting.



The Men's Model weighs about twenty-four ounces and the Ladies Model fourteen ounces.

No. 1051 MEN'S MODEL, ebonized,	\$1.50
No. 1052 MEN'S MODEL, natural finish,	1.00
No. 1053 LADIES' MODEL, ebonized,	1.25
No. 1054 LADIES' MODEL, natural finish,	.80

DUMB-BELLS



2 LB.

1 1/2 LB.

1 LB.

3/4 LB.

1/2 LB.

"STANDARD" MODEL DUMB-BELLS

The "Standard" Dumb-Bells have been carefully designed to meet the requirements of gymnasium exercise. The handles are large and smooth with rounded corners, and the heads are shaped to stand the most severe use. They are carefully turned of selected maple and finished in lathe polish only, and are as near the weight given as the wood will run.

"Standard" Dumb-Bells. Selected "Standard" Model, lathe polished, maple.

No. 1102 "STANDARD" DUMB-BELL, selected, weight 1/2 pound, per pair,	\$0.40
No. 1103 "STANDARD" DUMB-BELL, selected, weight 3/4 pound, per pair,	.45
No. 1104 "STANDARD" DUMB-BELL, selected, weight 1 pound, per pair,	.50
No. 1106 "STANDARD" DUMB-BELL, selected, weight 1 1/2 pounds, per pair,	.55
No. 1108 "STANDARD" DUMB-BELL, selected, weight 2 pounds, per pair,	.65

Selected Bells are free from imperfections. Culls are those having knots or stains that do not injure them for use; they are sold at half price.



WOOD HANDLE IRON DUMB-BELLS

A popular style of bell on account of the wood handles which do not chill or soil the hands, and the compact weight which gives an energetic action possessed by no other bells.

The three-quarter pound bell (see illustration) was especially designed for school use. It is a light, snappy bell, much liked by little ones.

No. 1170 WOOD HANDLE DUMB-BELLS, weight 3/4 pound, per pair,	\$0.60
No. 1172 WOOD HANDLE DUMB-BELLS, weight 2 pounds, per pair,	.80
No. 1173 WOOD HANDLE DUMB-BELLS, weight 3 pounds, per pair,	1.00
No. 1174 WOOD HANDLE DUMB-BELLS, weight 4 pounds, per pair,	1.20



"STANDARD"

CLUB AND BELL HOOKS

A hook with well rounded corners, that will hold Bells, Clubs, or Bar-Bells. They are furnished either with screws to be secured to any wood work, or mounted on oak strips neatly finished as shown.

No. 1145 "STANDARD" HOOKS, with screws, per pair,	\$0.16
No. 1145-M "STANDARD" HOOKS, mounted on oak, per pair,	.25



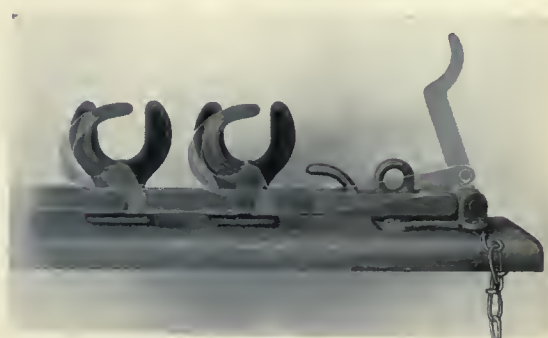
"STANDARD" LOCKING RACK.

This rack secures the apparatus so it cannot be used without supervision. These racks are furnished in sets of ten or more pairs to each lock, mounted on oak strips, as shown, at the prices quoted. They can also be mounted on racks, to hold ten or twelve dozen pairs of clubs and bells, provided with casters so they can be easily moved.

No. 1146 "STANDARD" LOCKING RACK, per pair, including lock, in lots of 10 pairs,	\$0.60
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This view of the under side of our "Standard" Locking Rack shows the mechanism and how it is operated. Under each hook is a pivoted lever, having a bent arm that when closed secures whatever is in the hook, and when opened as is shown in phantom, releases it.

These levers are all connected at their lower ends to a flat rod that runs the entire length of the rack, and is operated by the finger lever shown, and secured in its closed position by the lock.

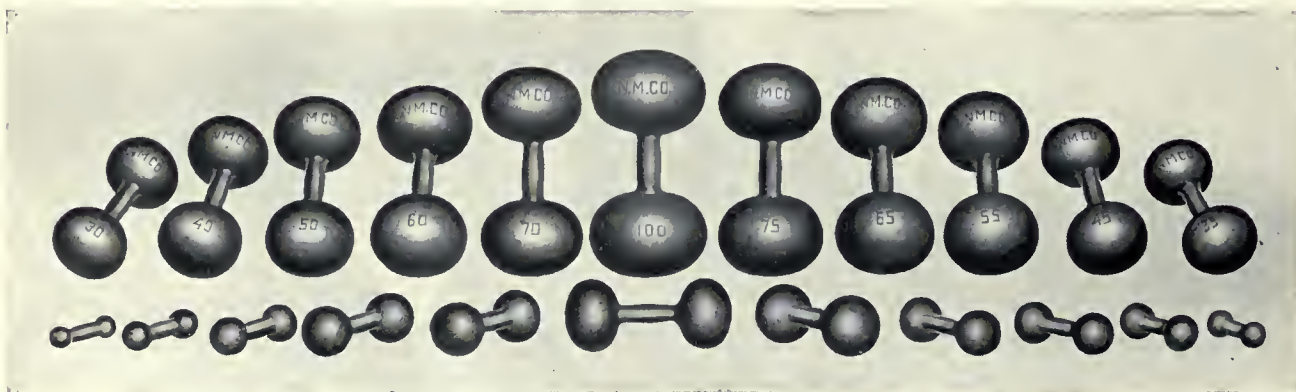




MUSICAL DUMB-BELL

The Musical Dumb-Bell consists of two pairs of brightly nickeled bells connected by a polished hard wood handle. Each pair of bells is arranged to hold a clapper or sounder which does not ring the bells until they are forcibly turned or shaken. The bells have a sweet, clear tone. Children are charmed with them.

MUSICAL DUMB-BELLS. One pair packed in a strong box, with Primer of exercises, \$0.64



IRON DUMB-BELLS

Plain cast iron dumb-bells, finely japanned, correct forms. Handles to fit the hand and long enough (even on the smallest bells) for the largest hands. Our dumb-bells are cast of the best gray machinery iron, are extra smooth, and do not require wrought iron handles.

No. 1151 IRON DUMB-BELLS, 1 pound, cast hollow, per pair,	\$0.24
IRON DUMB-BELLS, 2 pounds and upwards, per pound,	.08

We have the following weights:

2, 3, 4, 5, 6, 7, 8, 10, 12, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 90 and 100 pounds.

RACKS FOR HOLDING IRON DUMB-BELLS

No. 1150-1	RACK for 5 pair of from 3 to 6 lb. bells,	\$1.20
No. 1150-2	RACK for 4 pair of from 4 to 15 lb. bells,	1.20
No. 1150-3	RACK for 3 pair of from 20 to 30 lb. bells,	1.20
No. 1150-4	RACK for 2 pair of from 35 to 60 lb. bells,	1.20
No. 1150-5	RACK for 3 bells, 60 to 100 lbs. each,	1.20

All the above racks made of maple, thirty-six inches long, are to be placed upright on walls, are neat in appearance, strong and durable. One to three lb. iron bells may be held in Indian club racks.

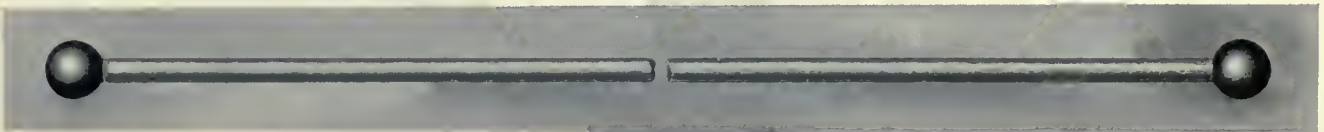
BAR-BELLS



'STANDARD' BAR-BELLS

The "Standard" Bar-Bells have pear-shaped maple bells, and lathe polished selected straight grained handles.

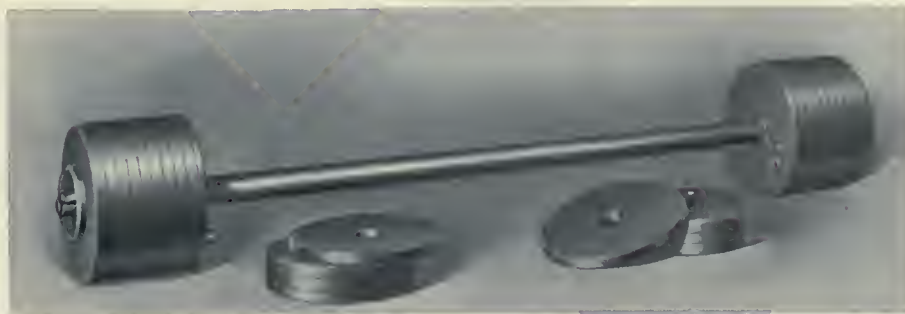
No. 1251 "STANDARD" BAR-BELL, 4 feet 8 inches long, each, **\$0.40**



IRON BAR-BELLS

Iron Bar-Bells have japanned iron balls, ash bars, and are five feet long over all.

No. 1261 IRON BAR-BELLS, 2 pound, 5 feet long, each,	\$0.60
No. 1262 IRON BAR-BELLS, 3 pound, 5 feet long, each,	.70
No. 1263 IRON BAR-BELLS, 4 pound, 5 feet long, each,	.80
No. 1264 IRON BAR-BELLS, 5 pound, 5 feet long, each,	.90



ADJUSTABLE BAR-BELL

The "Standard" Adjustable Bar-Bell consists of a bar provided with adjustable flanges having latches and end nuts. The adjustable flanges are set for any weight, by dropping the latch into holes in the bar.

When the weight discs are in place the latch cannot be loosened. The bar, latch discs and nuts weigh ten pounds, which is the minimum weight of the bar-bell.

There are eleven discs weighing five pounds each for each end of the bar. These when put on in pairs add ten pounds to the weight, making the range from ten to one hundred and twenty pounds. When the discs are in place they are held snug at the ends of the bars by the nuts, hence for any weight the weights are at the ends of the bar.

No. 1268 ADJUSTABLE BAR-BELL, weight 120 pounds, **\$16.00**

WANDS

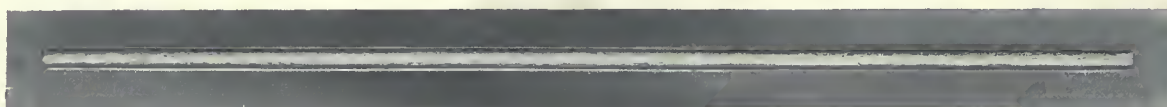
The "Standard" Wands are made of carefully selected maple stock, straight grained and strong. They have rounded ends and are filled and polished.



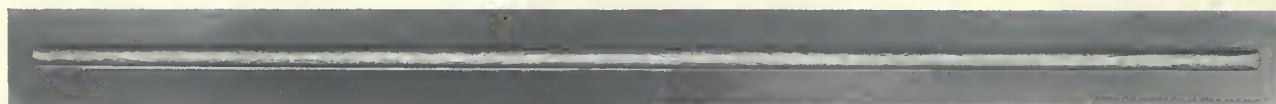
No. 1211 SCHOOL WAND, 3 feet x $\frac{5}{8}$ inches, per dozen, \$1.00



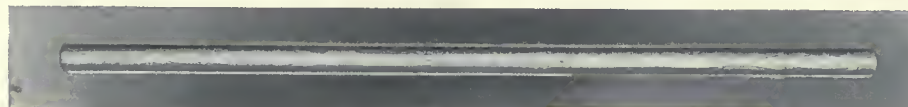
No. 1200 "STANDARD" WAND, $3\frac{1}{2}$ feet x $\frac{3}{4}$ inches, per dozen, \$1.60



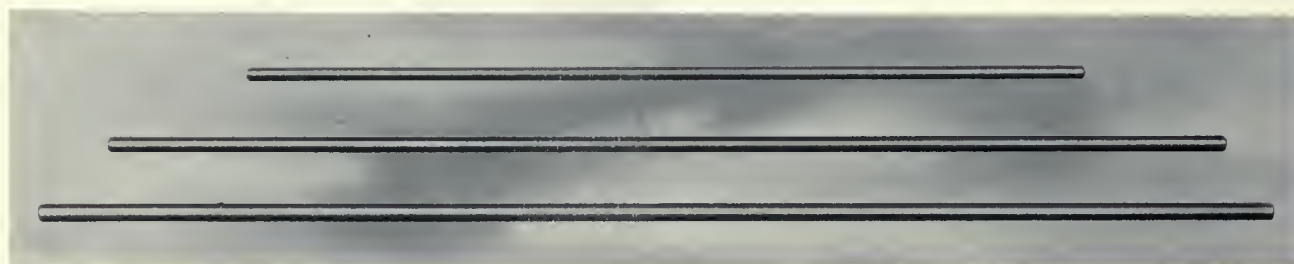
No. 1203 "STANDARD" WAND, 4 feet x 1 inch, per dozen, \$1.60



No. 1202 "STANDARD" WAND, $4\frac{1}{2}$ feet x 1 inch, per dozen, \$1.60



No. 1206 SHORT WAND, 3 feet x $1\frac{1}{4}$ inches, per dozen, \$1.60



JAPANESE IRON WANDS

No. 1230 IRON WAND, 3 feet x $\frac{1}{2}$ inch. Weight 2 pounds,	\$0.35
No. 1231 IRON WAND, 4 feet x $\frac{5}{8}$ inch. Weight 4 pounds,	.44
No. 1232 IRON WAND, $4\frac{1}{2}$ feet x $\frac{3}{4}$ inch. Weight 7 pounds,	.64

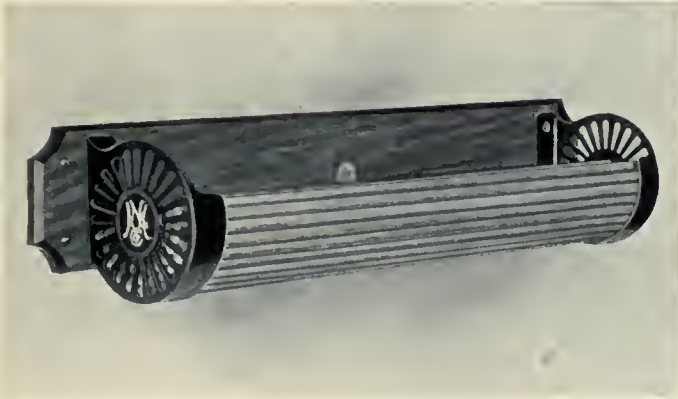


NICKELED STEEL WANDS

No. 1235 STEEL WAND, 3 feet x $\frac{1}{2}$ inch. Weight 2 pounds,	\$0.60
No. 1236 STEEL WAND, 4 feet x $\frac{5}{8}$ inch. Weight 4 pounds,	.80
No. 1237 STEEL WAND, $4\frac{1}{2}$ feet x $\frac{3}{4}$ inch. Weight 7 pounds,	1.25

WAND RACKS

HORIZONTAL WAND RACK



This style rack will hold several dozen wands, according to their size. The wands are thrown in as the class passes by and will lie straight as they fall. In taking the wands there is always one on the front edge of the bundle ready to grasp. It will hold forty one inch, or fifty three-quarter inch wands.

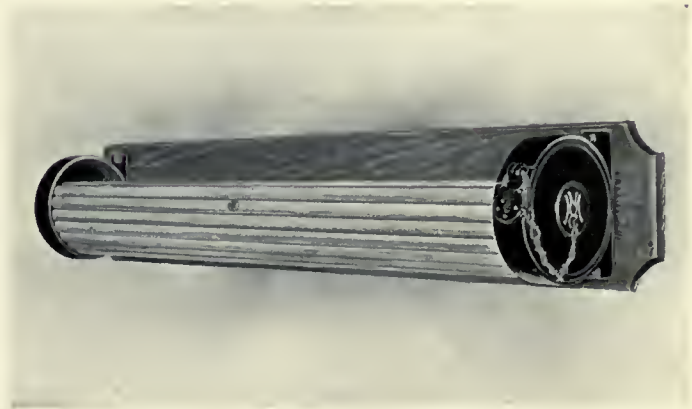
No. 1201-1 WAND RACKS, horizontal
per pair, **\$1.00**

No. 1201-2 WAND RACKS, mounted on
an oak board, per pair, **2.00**

LOCKING WAND RACK

One end of this rack has a hinged cap that can be locked, thus preventing use of the wands without supervision. The ends are lined inside with thick leather.

No. 1201-3 WAND RACK, locking, each, **\$12.00**



WAND BOXES

BOX FOR STEEL WANDS

Strongly made of oak with panelled sides. The top is perforated for seventy wands. The wands strike on a thick padded bottom.

No. 1201-9 WAND BOX, for steel
wands, **\$12.00**

BOX FOR WOOD WANDS

Made of oak with panelled sides and padded bottom. Will hold one hundred and fifty wands.

No. 1201-8 WAND BOX, for wood
wands, **\$6.00**





POLES

For pole exercises, made of selected pine or spruce. Finished same as wands.

No. 1278 POLE, 1¼ inches diameter, 12 feet long, each, **\$0.60**



RINGS

Made of three pieces of maple glued together, lathe polished.

No. 1301 RINGS, 5 inch inside diameter, 7⁄8 inch thick, per pair, **\$0.60**

No. 1301-1 RING RACK for 12 rings, **.40**

BALLS

Carefully selected of the proper weight and elasticity for ball drills. Each ball is separately inflated and sealed inside.

No. 1341 DRILL BALL, 2¼ inches diameter, weight 2½ ounces, per dozen, **\$5.00**



BEAN BAGS

Specially adapted for school drills. They are made of strong striped awning duck, loosely filled to catch easily.

No. 1350 BEAN BAGS, 7 inches square, per dozen, **\$2.00**

FENCING APPARATUS

FOIL HOOKS.

A convenient method of hanging up a foil.

No. 1659 FOIL HOOK. Japanned. Per Pair, \$0.30
 No. 1669 FOIL BUTTON. Per Pair, \$0.50



No. 1627

No. 1626

GLOVES.

No. 1626 FENCING GLOVE, for Foils. Buckskin. Not padded. Per pair, \$1.50
 No. 1627 FENCING GLOVE, for Foils. Tan-colored Kid, padded, with Patent-leather gauntlet. Per pair, \$3.00



PLASTRONS.

No. 1620 PLASTRON, for Foils. Fine Chamois, padded, with target. Per pair, \$5.00

NARRAGANSETT MACHINE CO., Providence, R. I., U. S. A.

FENCING APPARATUS



FOILS.

No. 1651 FENCING FOIL. Long, curved, cord-wound handle, regulation 34-inch blade. Per pair, \$2.00



SINGLE STICKS.

No. 1641 SINGLE STICK. Hickory with willow basket hilts. Per pair, \$1.20

No. 1642 SINGLE STICK. Hickory stick only. Per pair, \$0.60



No. 1611

No. 1612

No. 1613

MASKS.

Fine mesh, well padded, trimmed with red leather.

No. 1611 MASK. Face Guard only. Per pair, \$2.50

No. 1612 MASK. Ear and Face Guard. Per pair, \$3.00

No. 1613 MASK. Forehead, Ear and Face Guard. Per pair, \$3.50

No. 1618 MASK RACK, for three pairs of masks.

Japanned iron brackets and wood racks. \$3.00

NARRAGANSETT MACHINE CO., Providence, R. I., U. S. A.

GRACE HOOPS



WOOD HOOPS

Made of bent wood with the ends glued to prevent splintering. They are stained red, filled, rubbed smooth and varnished.

No. 1326 GRACE HOOPS, wood, 24 inch, each, **\$0.30**

IRON HOOPS

Designed to have sufficient weight to make the exercise valuable. Made of iron and covered with webbing wound and cemented on.

No. 1321 GRACE HOOP, iron, 24 inch, each, **\$1.00**

Grace Hoops may be hung on No. 1301-1 Ring Rack or on the locking rack illustrated, which holds one dozen hoops.

No. 1326-1 GRACE HOOP LOCKING RACK, each, **\$6.00**



ANDERSON FOILS

Costing less than steel foils, they may be used for the same purpose, and are also desirable for a modified broadsword drill.

The blades are made from straight grained hickory, and are very durable. The hilts are turned from maple to form a handle and guard. New blades are easily inserted.

No. 1401 ANDERSON FOILS, per pair, **\$0.60**

No. 1401-1 ANDERSON FOIL BLADES, per pair, **.30**

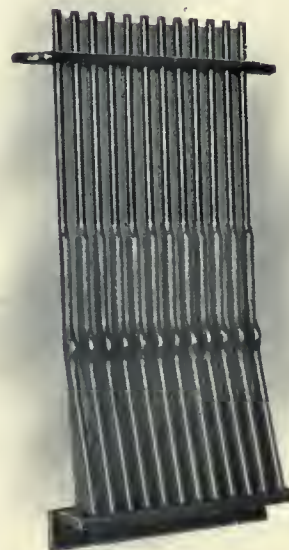
No. 1401-2 RACKS FOR ANDERSON FOILS, mounted, per pair, **.25**

DRILL GUNS

These guns are made of oak with black barrels and natural finish stocks.

No. 1426 DRILL GUN, 46 inch, each **\$0.50**

No. 1426-1 DRILL GUN RACK, for twelve guns, each, **4.00**





MEDICINE BALLS

Calf skin covered, cover sewed and filled, opening laced. Size given is circumference.

No. 1732 MEDICINE BALL, 30 inch, 4 lbs.,	\$4.50
No. 1733 MEDICINE BALL, 36 inch, 6 lbs.,	6.00
No. 1734 MEDICINE BALL, 42 inch, 8 lbs.,	7.50
No. 1735 MEDICINE BALL, 48 inch, 11 lbs.,	9.00

LACED COVER BALLS

A strong leather cover laced over a light sewed cover, as shown in illustration. Wears well.

No. 1736 MEDICINE BALL, laced cover, 30 inch,	\$6.50
No. 1737 MEDICINE BALL, laced cover, 36 inch,	8.00
No. 1738 MEDICINE BALL, laced cover, 42 inch,	10.00
No. 1739 MEDICINE BALL, laced cover, 48 inch,	14.00
No. 1730-1 MEDICINE BALL RACK,	1.50
No. 1730-2 MEDICINE BALL RACK, mounted,	2.00

INDOOR SHOT

This shot consists of a heavy duck inner bag, wound with canvas, having an inner leather cover sewed on and a thick leather outer cover laced on. The shot is slightly larger than when made with single elk skin covering, and will stand much harder use.

No. 1755 SHOT, 12 pound, laced cover,	\$8.00
No. 1756 SHOT, 16 pound, laced cover,	9.00



TOE BLOCK

For indoor shot "putting." Made to regulation dimensions.

No. 1793 TOE BLOCK, for indoor shot,	\$4.00
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FOLDING HURDLE

This hurdle is specially adapted for indoor work on account of its compactness when folded. It has a swinging gate that may be set at either two and one-half, or three and one-half feet high, by simply turning it half over. The gate swings or falls when struck.

No. 2475 FOLDING HURDLE, each,	\$5.00
SET of 40,	140.00





No. 1564



No. 1569

BOXING GLOVES

No. 1564 "TRAINING" GLOVE, made of wine colored kid, laced wrist, safety grip, and filled with a good quality of curled hair, **\$3.50**

No. 1569 "CLUB" GLOVE, extra large, made of California Napa green kid, padded wrist, safety grip, with large full side, laced wrist and finest curled hair filling, **6.00**



BASKET BALLS

The "Standard" Basket Ball Goals are regulation size and can be put up or taken down without tools, either indoors or outdoors on posts, trees, etc. They also have a socket to fit on one and a quarter inch pipe.

Net Prices

No. 1701 "STANDARD" BASKET BALL GOALS, per pair, **\$3.60**

No. 1702 "SARGENT" BASKET BALL GOALS, red and blue, for Dr. Sargent's Rules for Women, per pair, **4.00**

No. 1703 "REGULATION" BASKET BALL GOALS, per pair, net, **4.00**

Net Prices

No. 1707 BASKET BALL, best English Grain leather, calipered for size and roundness, **\$4.00**

No. 1705 B RUBBER BLADDER, first quality, **1.25**

No. 1708 THOMLINSON BASKET BALL, an imported ball. The most durable made, **5.00**

No. 1708B THOMLINSON BALL BLADDER, extra, **1.25**

No. 1709 "OFFICIAL" BASKET BALL, **6.00**





YOUNG MEN'S CHRISTIAN ASSOCIATION GYMNASIUM, TWENTY-THIRD STREET, NEW YORK CITY

RUNNING TRACK

The indoor Running Track has been slowly evolved from the path marked out on the gymnasium floor of the seventies, to the gallery track of nineteen hundred. The importance of a track, with a proper incline is shown by the fact that nearly all new gymnasiums make the best possible provisions for it.

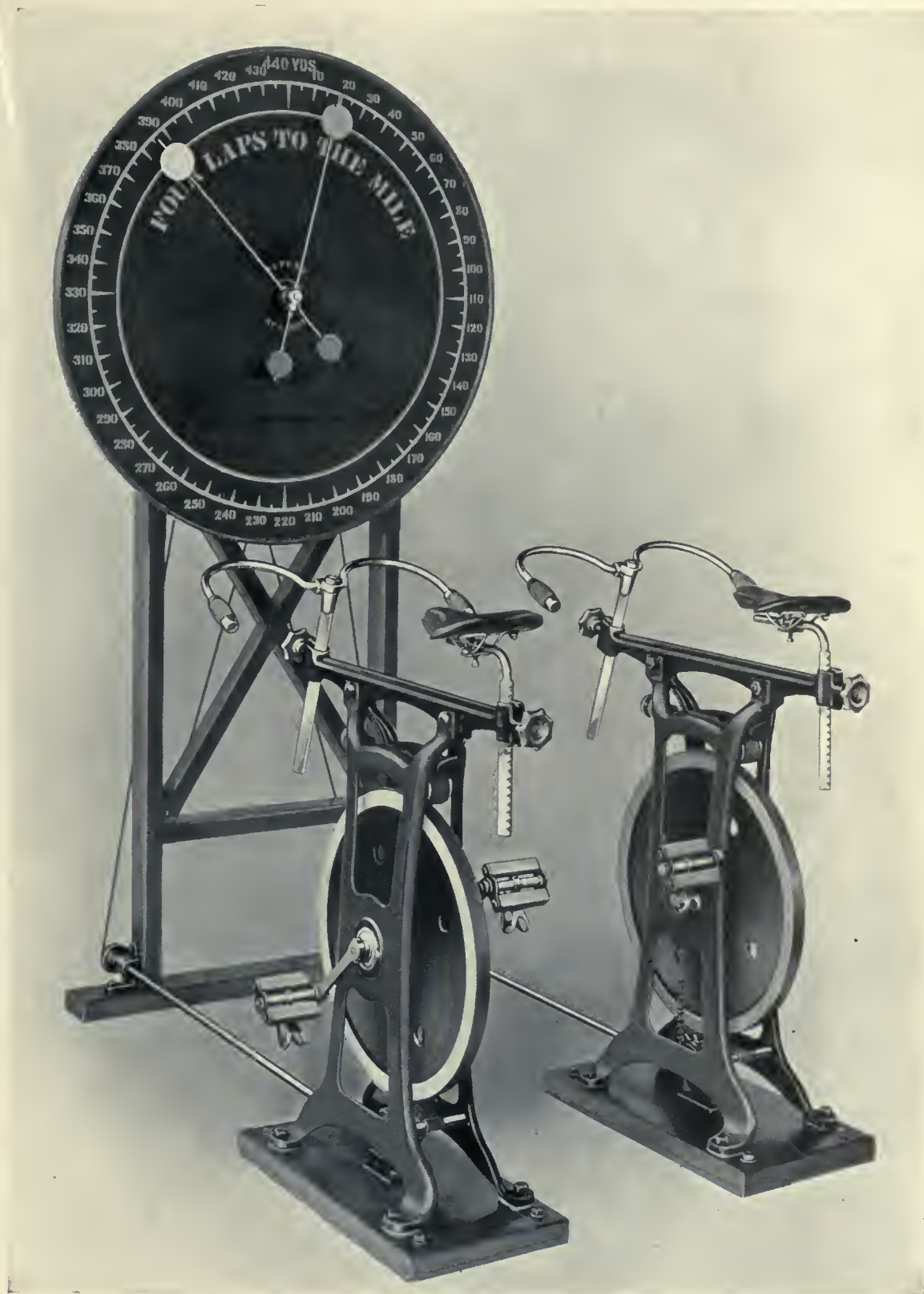
INCLINE. The proper Incline of a track is secured by placing curved sleepers on the rough floor of the gallery and flooring over them, thus forming a Concave Incline. The curvature of the sleepers and their location depends on the radius at the ends, or corners, of the track and the required speed. We will be pleased to furnish architects building tracks with plans showing the proper curves of the sleepers and their location for the Concave Incline. A plan of the gallery will give us the necessary information to do this.

COVERING. The covering of the Running Track or the path, may be made of canvas and felt (the Roberts track), or linoleum (the cork track).

ESTIMATES. We will be pleased to furnish estimates for either of the above coverings, either laid complete ready for use, or the materials only.

EXPERIENCE. Our experience, developed by twenty years of track building and laying, is at your service. We were the first to construct a Scientific Running Track based on a mathematical formula. Our Concave Incline Track is now as much a part of a well equipped gymnasium as either the horse or parallel bar.

Write us for any information you need regarding tracks. We will furnish, without charge, plans and estimates for any form of track.



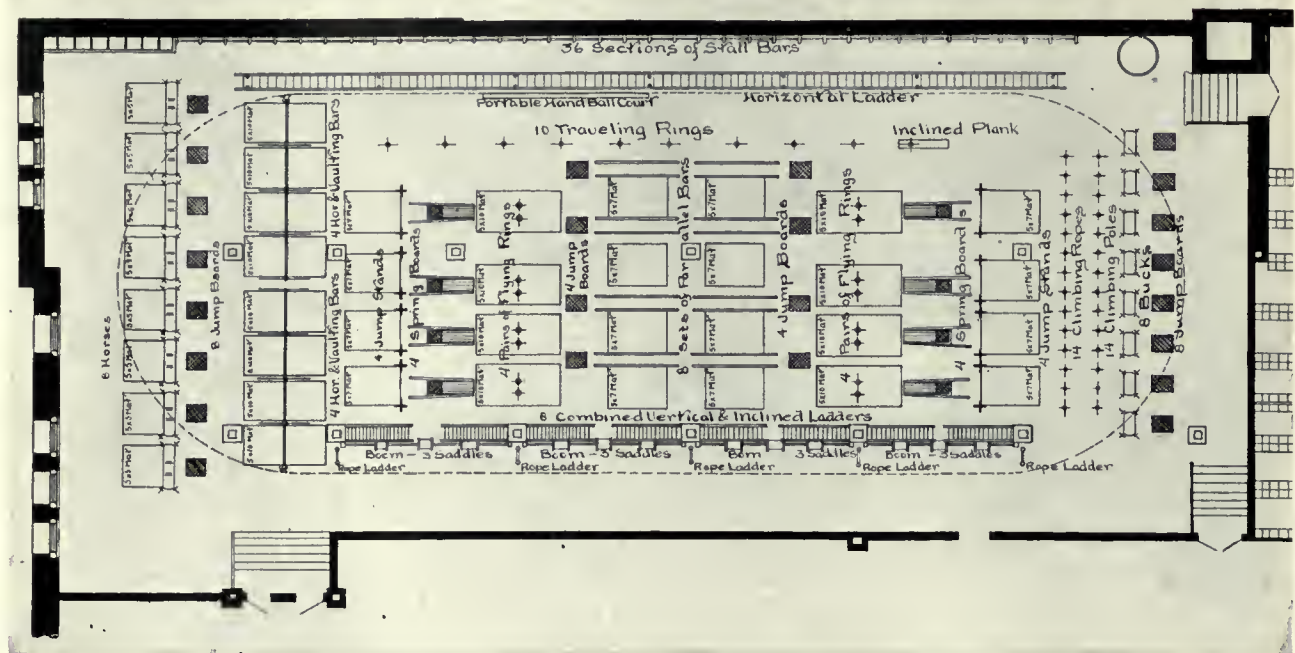
STANDARD BICYCLE TRAINER.

The "Trainers" or Cycles of this machine have been entirely re-modelled, using a larger shaft with liberal ball bearings, extra heavy cranks, neat and strong side frames and a method of holding the seat and front post that will not slip or work loose.

Each Trainer is connected to the index hand on the dial colored the same as the rim of its wheel, and geared to indicate the same number of revolutions per quarter mile as would be made by an 84 inch wheel.

No. 330 Bicycle Racing Trainer

\$200.00



PLAN OF DEWITT CLINTON HIGH SCHOOL GYMNASIUM, NEW YORK CITY

ESTIMATES

SPECIAL PLANS AND LISTS

We originated the custom of furnishing to Committees, Architects, etc., specially made plans and lists with estimates of cost for complete Gymnasium outfits, and continue to give such plans our best attention, selecting the apparatus on a scientific basis approved by leading authorities.

These Special Plans embody the experience of several years in fitting Gymnasias, and although they are gotten up at considerable expense to us we will furnish them free of charge, only asking that our claims for superiority of our apparatus be given careful consideration. They enable the matter of Gymnasium furnishing to be placed in convenient form before a committee for their consideration, revision, etc.

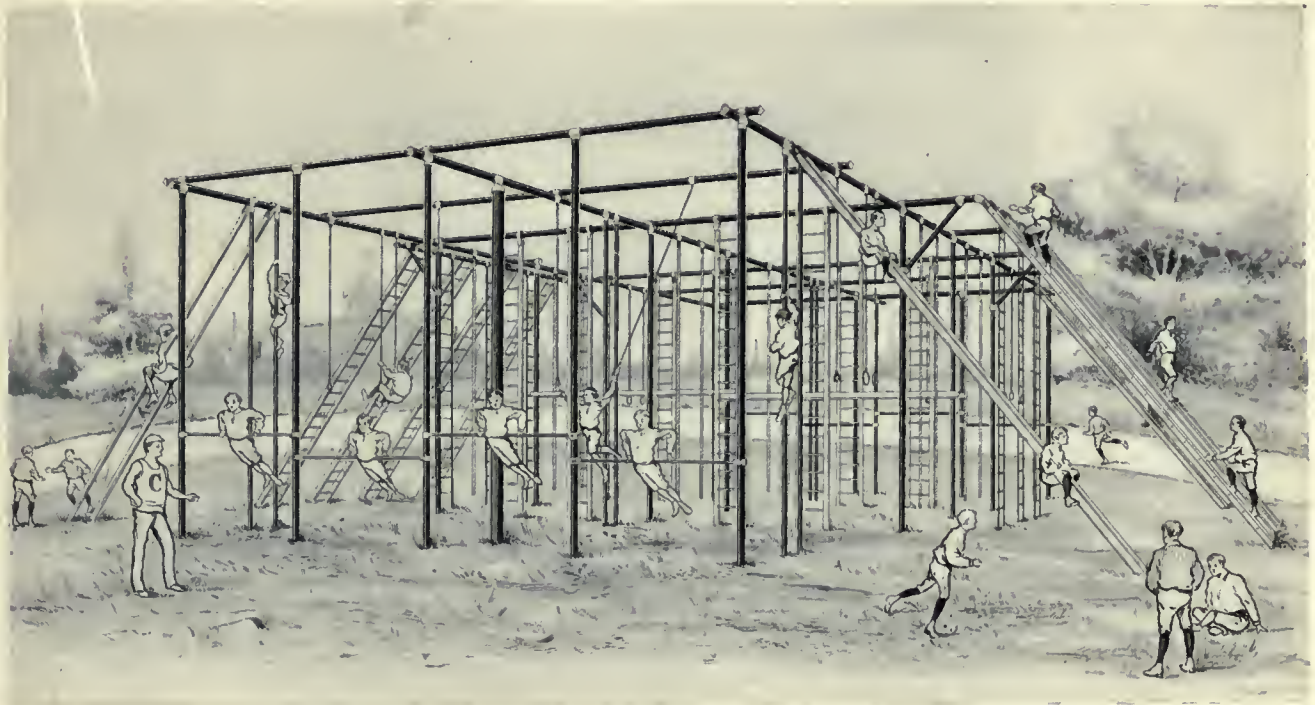
To make these plans we require full dimensions of the Gymnasium, height of gallery and railing, the location of the beams overhead and all windows, doors, etc. Generally the architect's plans contain all we need, and if desired, copies sent to us could be returned next day. The more complete the information we receive, the more value our plans and lists will have to intending purchasers.

These plans are made on a scale of one-quarter of an inch to the foot, and a full-size blue print furnished with a complete list of the apparatus shown, and prices on the same, either set up in the Gymnasium ready for use, or free on board cars in Providence.

When ready for Estimates on Equipment, send us plans as noted above, and we will make Plans showing the arrangement of Apparatus, Lockers, Alleys, or Running Track, with Detailed Estimates, in the best possible form for placing before directors or purchasing committees.

GYMNASIUM CONSTRUCTION

Having frequent inquiries from Architects and Building Committees for the necessary dimensions of Gymnasiums we have collected considerable material in the form of blue-prints. These prints show a section and plan of a typical gymnasium, giving the dimensions desirable for all gymnasiums and methods of constructing the running track gallery, building the concave incline, etc. We would be pleased to send them to interested persons.



MEN'S OUT-DOOR GYMNASIUM, CHICAGO PUBLIC PARKS, CHICAGO, ILL.

PLAYGROUND APPARATUS

The growing popularity of Playgrounds and Out-door Gymnasiums calls for equipment that will prove both durable and popular, that is, wear well, and please well.

It must be strong, to stand both use and abuse, durable to withstand the effects of wear and weather, simple so that children can use it, safe in both arrangement and construction, and compact, for city land is expensive, and the best use should be made of every square foot.

Our Playground apparatus is designed with these qualifications constantly in view. For ten years we have watched its use, noted the most durable materials, weeded out objectionable devices, developed and tested the suggestions of experts, until it is the acknowledged Standard of Perfection.

Playground apparatus proper, such as ladders, swings, etc., is always supported by either wood or iron frames. These frames can generally be furnished and erected by local contractors at the least cost, they being acquainted with the conditions and cost of material. For any order of playground apparatus placed with us, we will furnish plans and specifications for local contractors to build either wood or iron frames. The illustration shows one of the twenty frames we equipped for the Chicago South Park Commission.

We are always pleased to submit plans and estimates for the equipment of Playgrounds. Write for our Playground Catalogue H.



ANTHROPOMETRIC APPARATUS

We have a separate catalogue describing the apparatus for taking the measurements and making the tests recommended by the American Physical Education Association, also such apparatus for Medical Gymnastics, as Plinths, Massage Tables, Booms, etc., including the apparatus recommended by Dr. Anders Wide in his hand book of Medical Gymnastics.

Write for Catalogue I.



STANDARD STEEL LOCKERS

(PATENTED)

The Standard Lockers are the results of over twenty-five years experience in locker construction for gymnasiums. We were the first to make a specialty of lockers, making them of interchangeable parts and in unit cabinets and have had double the experience of others in their sanitary needs.

Standard Locker doors are reinforced with an angle iron frame over which the metal forming the front is drawn and sealed, making a strong door with no sharp corners or edges.

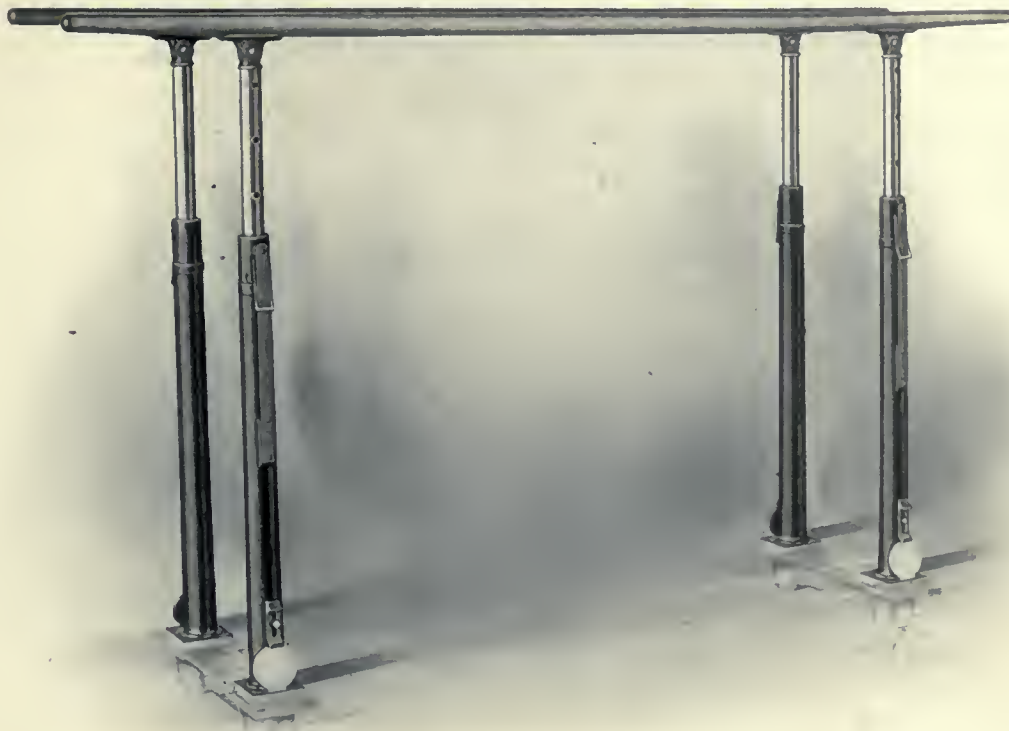
Standard doors fit the frame closely at the sides and lap over it at the top and bottom, making a strong neat finish; note the doors in the illustration.

Standard Locker construction makes a locker so strong that the feet can be placed from four to six feet apart, giving ample sweeping room beneath. Adjustable feet level the lockers independent of the floor.

On Standard Lockers all outside bolts have blank heads, i. e. not slotted, they cannot be loosened from the outside.

All angle and bar iron in Standard Lockers has smooth rolled sheet steel drawn over it; thus making the exterior of the locker a smooth uniform finish, well adapted for the hard baked enamel used.

Standard Lockers were developed in gymnasiums, that is the reason why they are suited to them. Send for Locker Catalogue "G."



FLOOR SOCKET PARALLEL BAR
Patented Oct. 17, 1905.

SPECIAL APPARATUS

In the foregoing pages of this catalogue will be found the apparatus generally called for in the equipment of gymnasia.

There are, however, constantly rising conditions that call for special designs, such as are illustrated on this and the three following pages. Such apparatus must always be somewhat experimental and to insure its success should be designed and made with great care. Our long experience and complete records of all special work we have done, coupled with ample facilities, peculiarly fit us for this class of work. We have also accumulated hundreds of patterns for details, such as brackets, blocks and various fastenings that have been tested by use and enter into the makeup of many special machines.

An inquiry for a piece of apparatus out of the ordinary, often discloses the fact that we have made a similar device of which we can send a photograph, or sketches, with estimates and information regarding the practicability of the device. Often on an inquiry for a device for a special purpose, we are able to suggest a modification of some previously made machine that will answer the requirements. The following examples of special apparatus will more fully illustrate our ideas.

The Parallel Bar shown above was originally designed and made for the University of Chicago Gymnasium; it is fitted to floor sockets, from which it is easily removed, caps closing the sockets. The caps with sliding latches on the posts form locking devices that hold the posts into the socket. The Socket Plates, shown in phantom, may be set before the floor is laid.

Floor sockets of this type may also be used for horses, bucks or other floor apparatus. Different pieces of apparatus may use the same sockets, as for instance, the horse may be put in end sockets of the parallel bar.



SPECIAL SWEDISH BOOM
In Teachers' College Gymnasium, Columbia College, N. Y. C.

In the illustration of the Teachers' College, Columbia University, New York, will be seen another type of special apparatus—a Swedish Boom reaching entirely across the room or sixty feet long. This Boom is raised and lowered by the winch at the further end. The bars may be turned out. When not in use the central posts fold under the bars, and are hoisted out of the way, and the end posts, which are secured to the gallery, swing up parallel with the gallery front.

Apparatus of this type calls for expert design amounting in many cases to invention, and thorough acquaintance with the use of apparatus is absolutely necessary to ensure its being safe and practical.

On the two following pages will be found a Vaulting Bar and Swedish Boom designed for the Chicago South Park Commission Field House Gymnasiums. The bars were installed in the ten gymnasiums for men, and the booms in the corresponding gymnasiums for women. The conditions required apparatus of simple but strong construction, without loose parts, easy to adjust and readily hoisted out of the way.

The proper installment of an equipment often calls for special designs of frames, bracing, hoisting apparatus, etc. Of these we have made careful studies, and for the easy and correct securing together and in place of such frames have developed many special patterns, and carry these parts in stock of malleable iron, thus securing the best results without delay. We will be pleased to submit designs and estimates for the installment of apparatus.



STANDARD AUTOMATIC LADDER

This Ladder has one end of the adjustable section secured to a vertically moving carriage, which is balanced by weights that are enclosed in the upright posts. It has an automatic latch, as shown in detail in the enlarged section, that is released when the adjusting rope is pulled and remains unlocked as long as the rope is kept taut. Immediately on slacking the rope the latches lock the carriage to the rounds. The ladder has all the dimensions of No. 813, as shown on Page 56, and the additional advantage of being easy to handle.

No. 815 AUTOMATIC LADDER, with foot ladder,
No. 816 AUTOMATIC LADDER, no foot ladder,

\$76.00
60.00

See also Page 56



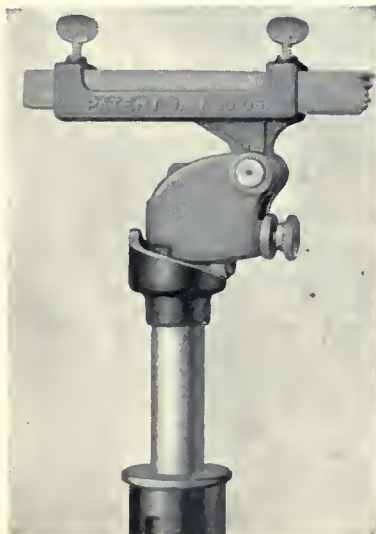
LISSACK POLE VAULT STANDARD.

PATENTED JAN. 30, 1906.

This Standard is specially adapted for pole vaulting and has a range of from 6' 5" to 12 feet. It consists of a single post having a sliding head by which the adjustment is made, and a pivoted top bracket that holds the stick.

By raising the sliding head, shown in the detail above, the sliding post carrying the top bracket, may be set and clamped at height indicated by scale on the post.

The Top Bracket, shown at the left, permits movement of the stick in any direction and returns it automatically to position. By means of an adjusting screw the stick may be levelled.



DETAIL OF TOP.

No. 675 Lissack Pole Vault Standard

\$40.00



SPECIAL APPARATUS

ROTATING ANKLE MACHINE

This machine consists of a pivoted shoe with the axes in line with the leg, having for resistance an adjustable pendulum.

No. 300 ROTATING ANKLE MACHINE,

\$26.00

HEAD AND SHOULDER LIFT

The weights in this machine are in the sliding frame, back of the padded back board, which is hinged to give access to them. The brackets are raised out of the way when the shoulder brackets only are wanted.

No. 318 HEAD AND SHOULDER LIFT,

\$50.00

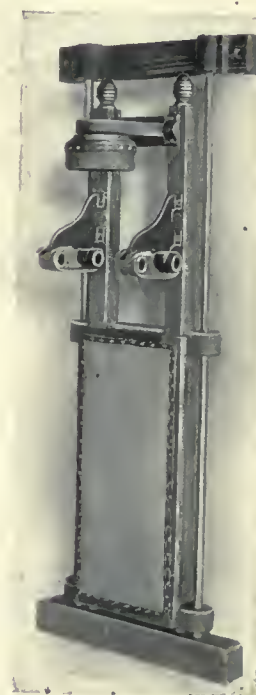


SIDE ROTATING ANKLE MACHINE

Consisting of a pivoted shoe and a weight that swings as a pendulum. The movement is rolling or turning of the foot on the ankle. The axle of rotation being parallel with the sole and length of the foot.

No. 302 SIDE ROTATING ANKLE MACHINE,

\$30.00



ABDOMINAL STOOL

An oak foot rest with a stool having an adjustable slide.

No. 352 ABDOMINAL STOOL, with slide and foot rest, as shown,

\$11.00

No. 350-1 STOOL only, with oak top as shown; 12 inch oak top, 17 and 24 inches high,

2.40

No. 350-2 STOOL only, with Screw Adjustment for height 17 to 24 inches,

4.00



ABDOMINAL TABLE

A substantial table with an adjustable foot rest that can be easily removed. The mat is brown duck covered and tapered at one end.

No. 355 ABDOMINAL TABLE,

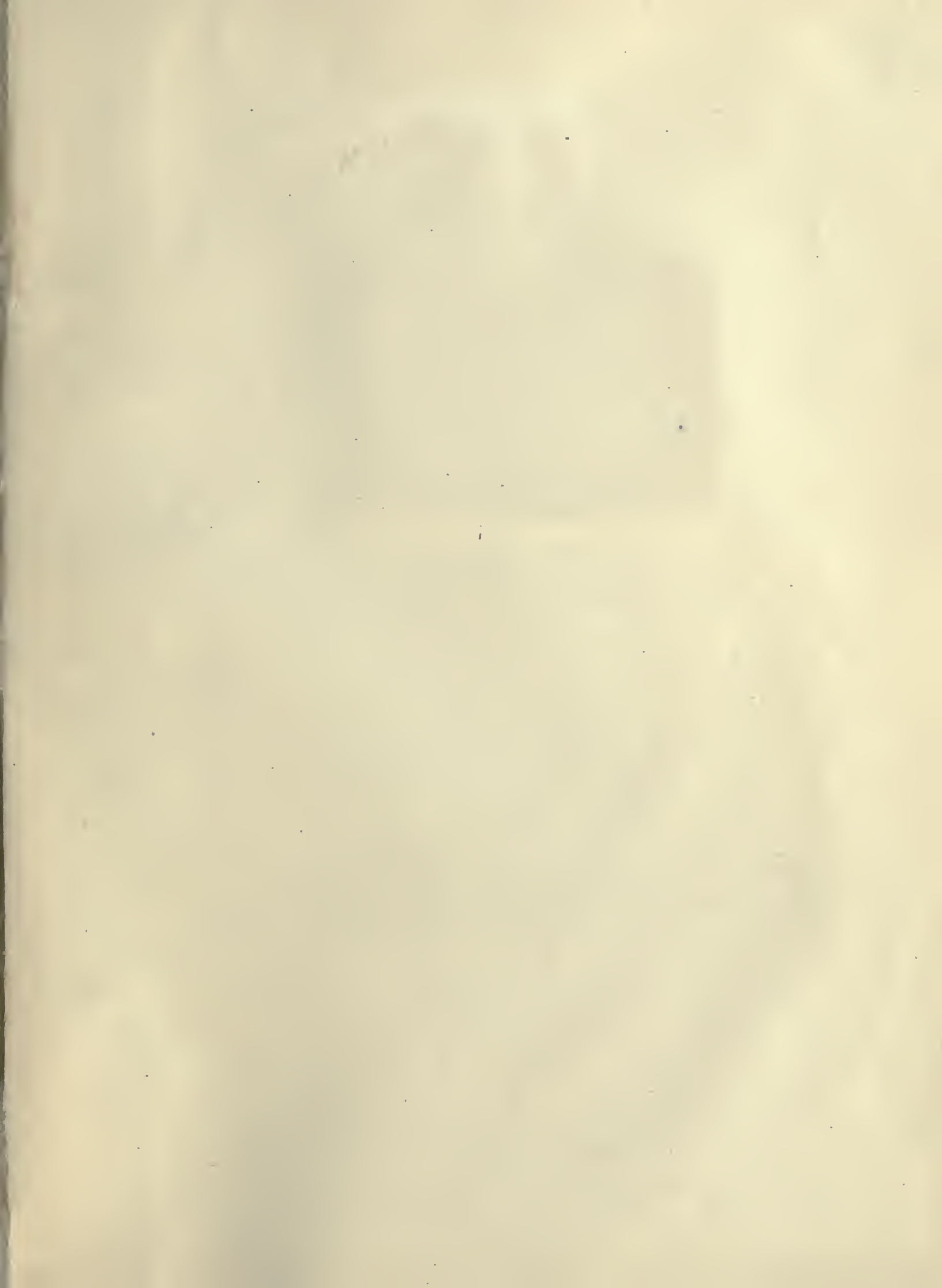
\$40.00



INDEX

	Page		Page		Page
Abdominal Chair	22	Guns, Drill	83	Pulley Weights, Defined	4
Abdominal Mat	15	Gymnasium Construction	88	Pulley Weights, Details	5
Abdominal Stools	95	Gymnasium Equipment	64, 88	Pulley Weights, Specified	6-7
Abdominal Strap	24	Head and Shoulder Lifts	95	Quarter Circle	18
Abdominal Table	95	Head Gear	13	Rings	82
Anderson Foil	83	Hitch and Kick	49	Rocking Joint	52
Ankle Machine, Frictional	26	Hoisting Fixtures	51	Roman Ladders	57
Anthropometric Apparatus	89	Horizontal Bars	30-33	Rope Ladder	39-72
Arm Machine, Frictional	27	Horse	42A-43	Rowing Pulley Weight	9
Automatic Climb	41	Hurdles, Folding	84	Rowing Weight	16
Back and Loin Pulley	19	Hydraulic Rowing Machines	29	Running Track	86
Back Boards	14	Inclined Plank	50	Safety Straps	38
Balance Board	45	Inclined Ropes	40	Sargent Pulley Weight	10
Balance Swing	57	Indian Clubs	74-75	Sceptres	74
Balls, Rubber	82	Instantaneous Turnbuckles	38	Sculling Machine	11
Ball Rope	39	Instructor's Platform	62	Shoe, Leg Pulley	15
Bars, Horizontal and Vaulting	30-38	Intercostal Machine	17-19	Shots	84
Bar-Bells	79	Japanese Hair Mats	73	Shoulder Lifts, Head and	95
Basket Ball	85	Jumping Boards	44-45	Sliding Pole	41
Bateau Board	44	Jump Frame	48	Sliding Pole Mat	41
Bean Bags	82	Jump Mat	48	Special Apparatus	91-96
Beat Board	44-45	Jump Stands	46-47	Split. Handle Intercostal Mac.	19
Benches, Swedish	69	Kick Attachment	49	Spring Boards	44-45
Bicycle Trainer	87A	Knotted Climbing Rope	39	Stall Bars	69
Boom	65-68	Ladders	54-57-93A	Standard Pulley Weight	6
Bowling Alleys	87	Ladders, Swedish	70-71	Standard Special Pulley W't	7
Boxing Gloves	85	Leg Machine, Frictional	27	Stools	95
Breast Bar	24	Leg Pulley	15	Striking Bags	63
Buck	42-43	Lissack Pole Vault Stand	94A	Striking Bag Drum	63
Chest Bars	24	Lockers	90A	Suspended Parallel Bar	62
Chest Bar and Ladders	55	Low Parallel Bars	61	Swedish Apparatus	65-72
Chest Expanders	17	Lunge Strap	38	Swing Attachment	53
Chest Weights	8	Lunger, Suspended	38	Teetler Ladder	57
Climbing Apparatus	39-41	Mats	73	Toe Block	84
Climbing Apparatus, Swedish	72	Medical Apparatus	89, 95	Trapeze	52-53
Clubs	74-75	Medicine Balls	84	Traveling Parallel	18
Concave Inc. Run. Track	86	Musical Dumb-Bell	78	Traveling Rings	50
Drill Guns	83	Nautical Wheel	28	Treadle Machine	22
Dumb-Bells, Iron	76-78	Neck Machine	13	Triplex Pulley Weight	20
Dumb-Bells, Wood	76	Paddle Machine	11	Vaulting Bar	33-36
Duplex Pulley Weight	19	Parallel Bars	58-62	Vaulting Box	65
Estimates, Plans and Lists	88	Pedal Machines	22	Vaulting Parallel Bar	60
Fancy Clubs	75	Pipe Stalls	25	Vaulting Poles	48
Finger Machine	13	Playground Apparatus	89	Walking Plank	45
Flying Rings	51	Plans and Lists	88	Wands	80
Foils, Anderson	83	Poles, Calisthenic	82	Wrestling Machine	28
Foot Strap, Leg Pulley	15	Pole Vaulting Board	47	Wrestling Mat	73
Frictional Machines	26-28	Pole Vault Stand Lissack	94A	Wrist Machine	26
Giant Pulley	14	Pulley Weights	8-23	Wrist Roll	12
Giant Stride	53			Wrist Roll, Frictional	26
Grace Hoops	83				

IF you do not find in our catalogue the apparatus you need, kindly advise us, as we are constantly making additions, and we may have just what you want. If you find apparatus listed, but not to your liking, let us know, and probably alterations may be made to have it suit you. If the prices are not what you expect, let us know, for while we cannot change prices, we may be able to suggest substitutes. Kindly remember that we shall be indebted to you for any suggestions you may make that will better enable us to meet your wants.



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